THE ARCTIC FORESTS

THE AUTHOR

THE ARCTIC FORESTS

BY

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PREFACE

In these pages I have tried to give an accurate general idea of conditions in the lands which I describe, hoping to appeal to ethnologist, naturalist, hunter, and general public. I have purposely avoided using pedantic scientific terminology, and left out such information as is of more general knowledge on the natural history subjects.

Though I describe and refer to many things of which I can show no illustrations, it must be remembered that many disasters can overtake a camera in the Arctic, and also that it is impossible to take photographs and do the work on hand at the same time. About half the photographs in this book were taken by my friend, Harry Anthony.

For censorship, revision, and general help in the compilation of these pages I owe thanks to Violet Mason. The short stories are either true or founded on facts.

I am indebted to the *Nineteenth Century* for permission to reprint 'The Caribou Hunters.'

MICHAEL H. MASON.

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INTRODUCTION

I ploughed the land with horses,
But my heart was ill at ease,
For the old seafaring men
Came to me, now and then,
With their sagas of the seas;—

Of Iceland and of Greenland,
And the stormy Hebrides,
And the undiscovered deep;—
I could not eat nor sleep
For thinking of those seas.
LONGFELLOW.

To quote Othere at the beginning of a book of inland travel may seem incongruous, but it has its significance. As a little boy my imagination roamed over the world of Romance as I saw it through the written word, and I think that nothing I read filled me with so much longing to go and do likewise as the ballad of the Viking discoverer of the North Cape.

Four days I steered to Eastward,
Four days without a night;
Round in a fiery ring
Went the great sun, O King,
With red and lurid light!

When I should have been absorbing the dismal lamentations of Ovid or mastering the propositions of Euclid, I used to see the old sea captain, standing in the bows of his open boat, his face encrusted with salt, his beard blowing over his shoulder, gazing through the cold fog at the red midnight sun to northward: sailing on into the unknown, perilous sea.

I never lost the longing to see these things myself. The history of my earlier wanderings would be of little interest, but, to make a long story short, I found my way into the Alaskan Arctic in the summer of 1920, and for two years I lived the life of the very few who make their home in the northern wilderness. I never look back on that period with anything but pleasure and a longing to return. Bad times came with the good, of course, but the tendency is to forget the blistered feet, the aching shoulders and hips, the empty stomach, the ever-present menace of the winter cold and the moments when, in a 'jack-pot,' I would think, 'Damn it, this is my finish!'

The memories that abide with me strongest are the wonderful, aurora-lit nights in the open camps, the feeling of power while running behind the dog-sled, the thrill of seeing the wild beasts in their native forests and mountains, the midnight sun over the great sweep of the Mackenzie Delta, the 'pffw-pffw-pffw' of the big snowshoes curling their way through the undergrowth on the trail of the moose, and the lakes, creeks, and mountains, unmapped and unknown, whither my feet found their way.

* * * * * *

I was on an Alaska coast steamer one summer, and an eminent New York banker, who was on a summer pleasure trip to Skaguay, said to me: 'Is that right, that you 're from the Mackenzie River? Let 's see—the Mackenzie River runs into the Yukon north of Nome, does it not?' In view of the ignorance of geography of some, the others must forgive me for having put in the map of America north of Lat. 58°.

The summit of the St. Elias Range of Alaska and the Cascade Range of British Columbia form the dividing line between the warm, damp climate caused by the Japanese current and the dry interior with which I am dealing in this volume.

The Arctic forest land is not, as many suppose it, a barren expanse of perpetual snow and ice.

On the Arctic Circle the winter lasts for eight months, but from March to September the sun shines for longer than at lower latitudes, during the winter for less time. On the circle itself, at sea level and on a flat landscape, the midnight sun is fully above the horizon on midsummer day only, the midday sun fully below the horizon to southward on the 21st of December.

From September onwards the air is freezing steadily in the shade. In October the thermometer comes down to temperatures of −20° F. or −25° F.

The rivers freeze up in early October, but the ice is generally unsafe to travel on until November, which is the month of falling snow, overflow water, and bad travelling. December, January, and February are the real winter months with the bitter, fiendish cold, down to seventy below or more, the short days and the hard, sandlike snow. By the March equinox the mean temperature is rising and the travel improves. The sun is up long hours and the twilight is long in the northern latitudes. Sled-travel is more of a pleasure in March than at any other time, as long as it is not too windy. In April the snow begins to melt, and in May the whole country is under slush, the ice rots in the rivers and breaks up.

In June the ice and snow are gone from the low ground and the lakes are clear; then the mosquitoes start and make life an increased burden as time goes on through the July heat to the middle of August. The sun is now up throughout the night and the temperature sometimes goes to 100° F. and even 110° F. in the shade. I think that most of the northern folk prefer the winter, with its bracing cold, to the sweltering months of fighting the insect pests.

It is very hard to give an outsider any real idea of Arctic cold. At 60° below zero, F., a by no means uncommon temperature in the winter months, a man may throw a bucket of water into the air and it will reach the ground in the form of ice. Meat or butter must be cut with an axe, or sawn, and chips fly off it. The sap is frozen in the trees throughout the winter, and the ground is frozen down for hundreds of feet, only a few feet of which thaw in the summer. If a man should take his hand from the mitten at 60° below zero, it will begin to freeze immediately, and only hands that have become very tough can stand more than a few seconds unmittened at that temperature. The face freezes, of course, but that is of no importance compared to the hands and still more the feet, which are the chief danger, as they will freeze without the owner knowing it, and he may lose a toe, or more, from gangrene.

At the low temperatures extreme care must be taken all the time, and when it gets down to −70° or worse it is better to keep to camp; the danger of travelling is too great. On the Arctic coast the mean winter temperature is higher, but the wind is more severe, and the entire absence of timber makes a totally different mode of life necessary: the snow-houses

NEAR FORT YUKON

STARTING FOR A HUNT, PORCUPINE RIVER

and seal-oil lamps of the Esquimaux instead of the open camps, tents, and wood-fires of the forest people.

In the interior the dry, powdery snow calls for big, long-legged team dogs and small flat-bottomed sleds or toboggans, but on the Arctic tundras the ' Huskies ' use long runner-sleds with the little short-legged ' husky ' dogs who can run all day long over the iron-like crusted snow.

* * * * * *

The Aurora Borealis, or Northern Lights, are phenomena of continual interest, mainly because so little is known of them. They follow no known rule but are generally showing on any dark, clear night.

Peary says that he has seen auroras just as beautiful in Maine as he ever saw in Northern Greenland, and the best I ever saw was at Fort Yukon, not in midwinter but in late October.

Generally the lights are dancing overhead in an arc or arcs from east to west, always on the move, as if blown by gusts of wind. Usually the colour is the pale blue of an electric spark in a vacuum, but sometimes the whole sky is lit up in a painted dome, by every colour of the rainbow, winnowing wildly in streaks and shoots of flame, shimmering, motionless for a few seconds, and then dancing again—one of the most fascinating sights imaginable.

A lovely sunset is like a picture, but an aurora can be the living soul of colour ; the red and green and blue and yellow, the purple and orange and violet tints, strong and pale, mixing and separating, dimming and brightening, dancing over the sky in the ghost-dance of the spirits of colour, with a few stars shining through.

Another interesting light-phenomenon of the North is the sun aurora of midwinter.

In the long, dark months, when the sun only shows his face to withdraw it, this light effect is sometimes seen just as he appears over or on the horizon. It is quite common though irregular. The usual form is the plain 'sun-dogs,' a blaze of light, on either side of and equidistant from the sun. Occasionally this aurora makes the full semicircle, but on one occasion I had the good fortune to see a still more interesting double aurora, of which I show the picture, opposite p. 8.

My two companions at the time had been in the north country most of their lives and had never seen it before. Archie Linklater, born in Winnipeg, has passed all his sixty-eight years in north latitudes, and he thought he remembered hearing of this double aurora once, but had never seen one. As the sight is so unusual I will give the circumstances.

Date: February 1, 1921.

Time: Midday.

Locality: Driftwood River. Lat. 68° N. Long. 138° W. Climatic conditions: Dead stillness. About −70° F.

It was about the coldest day I have ever known, and probably that had something to do with it. I drew a sketch in my diary that night, and this picture is copied from that.

A faint aurora resembling the sun-dogs is sometimes seen in connection with the moon. Archdeacon Hudson Stuck called these 'moon-cats' and, for lack of a better, this name might as well be used.

* * * * * *

Owing to the continual frost in the ground, only thawed out for a few feet in the short summer, the timber remains small. The biggest trees are in the small valleys of the higher mountains, where the snowfall is greatest, and in those great alluvial drifts, the Yukon Flats and the Mackenzie Delta. It is very noticeable that to northward the timber gets steadily smaller. On the Stewart River, Yukon Territory, the timber runs up to two feet at the butt, whereas on the Porcupine River at Old Crow Village it is hard to find trees exceeding a few inches. The forest, as it lies towards the north, gradually thins and dwindles, till it merges into the rolling Arctic prairies, where the only timber is found along the banks of streams. The commonest trees are spruce, birch, tamarack (larch), poplar, and cottonwood, with an undergrowth of willows and some juniper. The willows in most places are very thick and impede travel considerably.

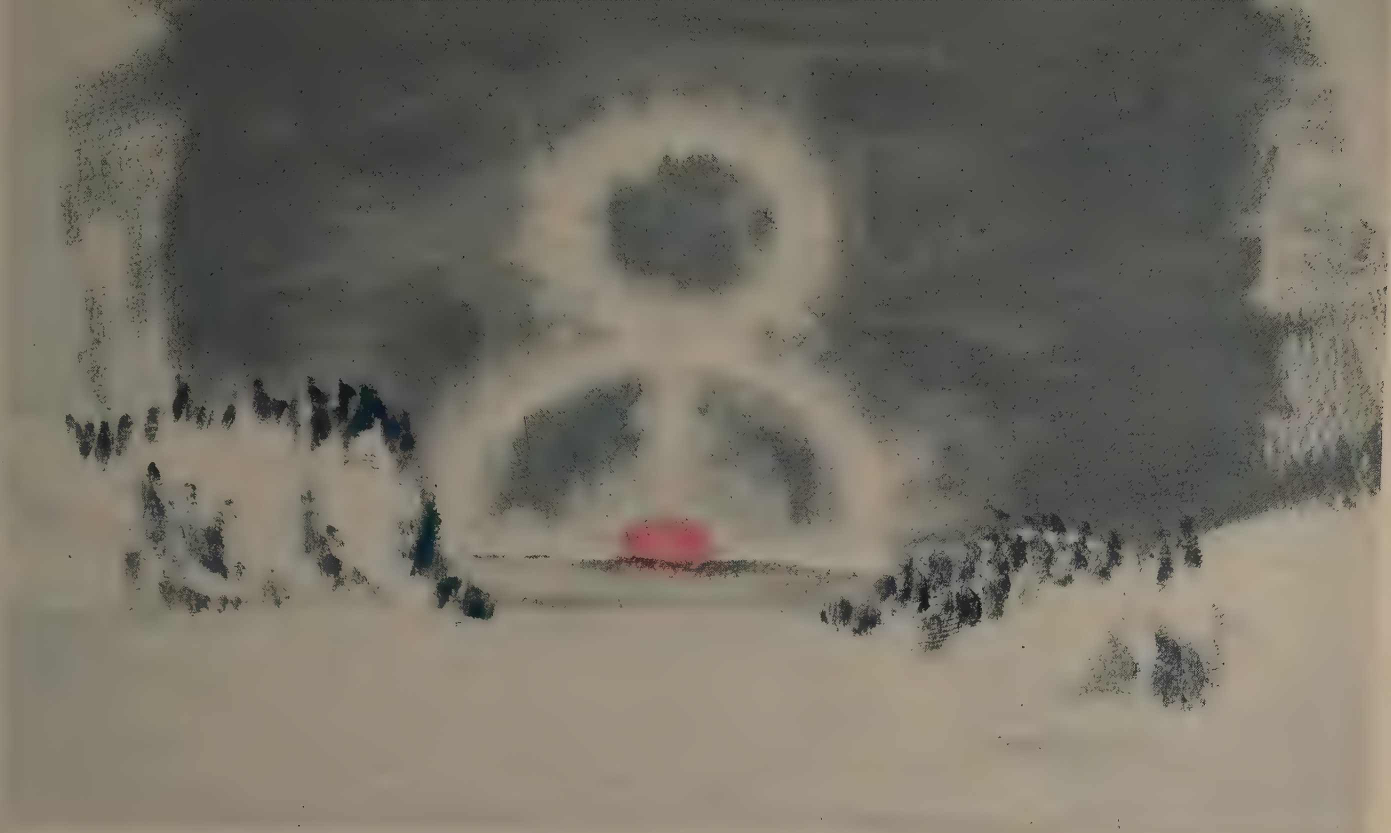
Anemones are plentiful on the tundras in the summer, while the forest is made more lovely by a plant known as 'fireweed' or 'peavine'[1] which grows thickly in big patches, bearing very beautiful red flowers. These harmonize most perfectly with the background of brown and coppery trunks of spruce, the white bark of the canoe-birch, the brown tamarack-needles on the soft, grey caribou-moss, the everlasting dark green of the upper branches, and the bright blue summer sky.

In the fall, or autumn, when the flowers are gone and the winds are getting edged with frost, the birch and willows turn from green to yellow, brown, copper, and every shade between, setting off the dead yellowy-green of the 'nigger-head' swamps and the evergreens akin to black.

---

[1] Greater Willow Herb.

September is, perhaps, the most beautiful month of the year, before the leaves have fallen, unless it is the midwinter, with the deadly, utter stillness of the world of green and white, when the snow rests on the spruce boughs and the spirit of the Arctic, the dry, merciless cold, wages a perpetual, inexorable warfare of passive resistance against Man, the intruder.



DOUBLE SUN AURORA, DRIFTWOOD RIVER, YUKON TERRITORY, FEBRUARY 1ST, 1921

THE PEOPLE OF THE ARCTIC FORESTS

THE PEOPLE OF THE ARCTIC FORESTS

THE nation which I know best is the Takudh Kutchin tribe of Indians, but a brief résumé of all the tribes and nations inhabiting the lands to which this book is devoted, would help to explain the accompanying chart. I am only dealing with the peoples under their present conditions, as owing to the tribal migrations, wars, extinctions by famine and disease, as well as the amalgamations of tribes brought about by common use of white men's trading posts, some tribes have become very mixed.

ESQUIMAUX.

Other names: Eskimos (U.S.A.), Huskies (Hudson's Bay jargon), Innuit (Esquimau), Skroelings (Scandinavian), Huskemaw (Labrador), Seymos (Hudson's Bay sailors), Ta-Kutchin (Takudh), Weashkimek (Saulteaux).

Habitat: The coast regions of the north between South-East Alaska and Labrador, including the northern islands of Canada.

They travel inland during the summer, but the only permanent inland Esquimaux are those of the Endicott Mountains, Alaska. So much has been written about these people by more competent authorities that I will pass them over. [See Stefansson's *My Life with the Eskimo*; Rasmussen's *The People of the Polar North*.]

ATHABASCAN DIVISION.

TAKUDH KUTCHIN.

Also called: Loucheux (squinters), Digothi (quarrellers), Dindjié (corrupted from *Takudh tinjih*=man) Irkpéléit: Esquimau name (larvae of lice).

The nation speaking the Takudh language inhabits: The Yukon Flats, basins of Peel, Porcupine, Arctic Red, and Chandalar Rivers as far north as the timber, the Mackenzie Delta, and as far east as Anderson River.

The sub-tribes are: The Kutcha-Kutchin (people of the flats); Natsitkutchin (strong people), also called Vŭtsaikutchin, and Gens de large (from which Chandalar); Tatlitkutchin (river-mouth people), inhabiting Peel River and the Mackenzie Delta; Kwitchakutchin (people of the steppes), from the Mackenzie E. to Anderson River; Nakotchokutchin (bastard people), Arctic Red River; Vuntakutchin (willow creek people) [also called Gens des Rats, Zjén-ta-Kutchin (musk-rat people), Vani-ta-Kutchin (people of the lakes)], who inhabit the Porcupine River basin from the Yukon Flats as far north as the timber grows.

The sub-tribes Tatsakutchin and Tenuthkutchin are now extinct, having been destroyed by scarlet fever in 1863.

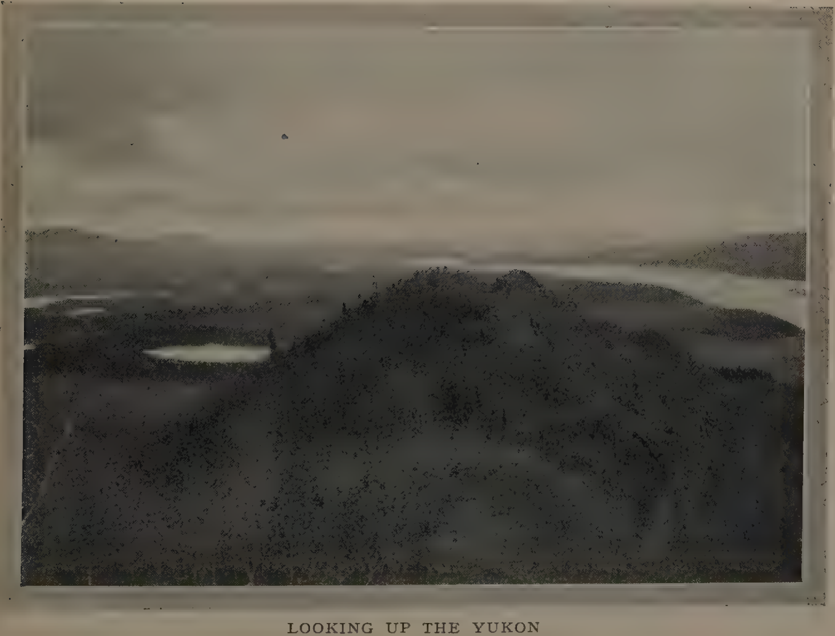
KHOTANA (people).

This virile and formerly warlike nation inhabits the valley of the Koyukuk and the Lower Yukon as far as Anvik and the country between the Kaiyuh Mountains and Cook's Inlet, and comprises Kaiyukkhotana, Knaiakhotana, Unakhotana, Koyukukhotana and Yukonikhotana.

AHTENA (ice people).

Also called: Ahtnakhotana, Artezkutchin, Copper Indians, Ketschetnäer (Russian=ice people).

RAMPARTS OF THE PORCUPINE



LOOKING UP THE YUKON

Habitat: The region of Southern Alaska drained by the Copper River and including the headwaters of the Tanana and Chulitna Rivers.

The most interesting point about this people is their use of a kind of Turkish bath, made by pouring water on to red-hot stones in a subterranean vault. They wear the Esquimau costume, consisting of only two garments, parkee and trousers with feet of caribou or sheepskin.

Comprises sub-tribes: Ikherkhamut, Kangikhlukhmut, Kulushut, Shukhtutakalit, Vikhit, and Kulchana.

TANANATANA (mountain people).

Also called: Tanankutchin, Gens des Buttes, Tananas, Tannan-tnu-Khotana.

They inhabit the valley of the Tanana River of Alaska and used to travel as far as Fort Yukon to trade with the Kutcha-Kutchin.

Sub-tribes are: Clatchotin, Huntlatin, Nabesnatana, Nukluktana, Nutzotin, Santotin and Tolwatin.

AI-YA-NA (river people).

Also called: Gens de fou, Hankutchin, Gens de Bois, Gens de fine, Wood Indians, and Moosehide Indians.

They live along the Yukon between the Pelly River and the Yukon Flats, including the lower Stewart River. They weave watertight baskets from tamarack roots and make dug-out canoes.

Include tribes: Katshikotin, Takon, Tsitoklinotin, Trotsikotin.

KAHTCHOGOTINNE (people of the large hares).

Also called: Déné Peaux-de-Lièvre, Hare Indians, Rabbitskin Indians, Nouga (spittle: Esquimau).

These people inhabit the Mackenzie Valley below

Carcajou River to Loon River and east to Great Bear Lake and Lac des Bois. Their name is derived from the numbers of ‘ snowshoe ’ rabbits, or Arctic hares, in their country. They weave garments and blankets from strips of rabbit skins. Formerly they also killed many caribou, but since trading days the caribou have left that country, and the Kahtchogotinne, or Rabbitskins, as they are called locally, now live largely on imported food-stuffs bought with their furs. Their district is probably the best fur country in America at the present day.

The Rabbitskins believe that the earth was conceived through some mysterious workings of a musk-rat and a beaver. When they die they will be taken in a canoe towards an island of enchanting desirability. Within sight of this island they will be judged and, if found fitted for Paradise, they will be allowed to land and live there in bliss through eternity. (This will consist of an endless round of sensual enjoyment and carnal gratification.)

If, however, unfit for the reward of this heaven, the canoe will sink under them and they will remain, *ad perpetuam*, up to their chins in water, always struggling unavailingly towards all the pleasant things they can see but which they will never be able to reach.

Sub-tribes are Kattagotinne, Chintagotinne, and Kfwetragotinne.

THLINGCHADINNE (dog-flank people).

Also called: Dog-ribs, Klaytinne (dog people), Flancs-de-chien, Attimospiquai (dog-ribs).

These Indians cover the whole country between Mackenzie River, from Great Slave Lake to Great Bear Lake, as far east as Yellowknife and Coppermine Rivers.

Their name is said to come from a legend that the tribe springs from the union of a woman and a supernatural dog-man.

After the discovery of copper by a woman of the Tatsanotinne, another woman of the same tribe was living with her two brothers to the north of Great Slave Lake. One day a strong and handsome stranger arrived, who, on the proposal of both brothers, took her to wife. Waking in the middle of the wedding night she found her husband gone and heard an animal crunching bones in the fireplace. There were no dogs then among the Tatsanotinne (Franklin found them without these animals in 1820). The same thing happened next night. The bride and her brothers lighted torches, but found no animal. On the third night one of the brothers hurled a stone axe at the place where he heard the noise of gnawing. There was a cry of agony, and on lighting torches they found a great black dog twitching in its death throes. As the human husband did not reappear, the brothers chased forth their sister because she had married a dog-man, a sorcerer, a Tlingit. She wandered into the treeless desert of Coppermine River, and in due course brought forth a litter of puppies, which she kept hidden in a bag of caribou hide. When they could run alone, she was astonished to find, on her return from hunting, infants' footprints in the ashes. Hiding, she saw the puppies leap from the bag and change into handsome children. She kept them forcibly in the daylight to preserve their human shape, and from this family the tribe of Thlingchadinne are supposed to be sprung.

Another explanation of the name is that these people coming to the Mackenzie River with the meat of the little Barren Land caribou, met some Nahanis, who had only seen the larger mountain caribou and who exclaimed : ‘ Look at the people with the dog ribs ! ’

They are a dirty, degenerate breed. In olden times they lived in continual terror of the warlike Crees.[1]

Mackenzie, who first saw them, said : ‘ They are a meagre, ugly, ill-made people particularly about the legs, which are very clumsy and covered with scabs. Many of them appeared to be in a very unhealthy state, which is owing, as I imagine, to their natural filthiness. They are of moderate stature and, as far as could be discovered through the coat of dirt and grease on them, are of a fairer complexion than the generality of Indians who are the natives of warmer climates.’

They live largely on the caribou, but mostly on fish and trade goods. A timid, inoffensive, but unprogressive people, they are now much reduced by disease and famine.

ETCHAREOTINNE (dwellers under cover).

Also called : Slaves, Slaveys, A-cha-o-tinne (low-landers), Esclaves, Awokanak (Cree : slaves).

This tribe, originally living round Lake Athabasca, was driven northward by the terrible Crees, known to them simply as Enna (enemy), and now hunt the wide tract of country from Slave Lake to Gravel River, along the Mackenzie and westwards to the Rocky Mountains. Their range includes Hay River and the lower Liard River. This extremely unprogressive, degenerate, and lazy tribe is now, like the Dog-ribs, much ravaged by disease.

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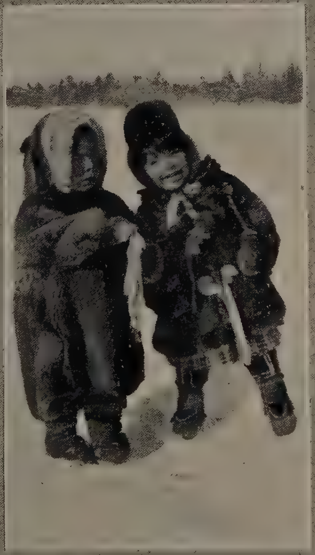
[1] Important Algonquin nation. Name from Kristinaux (corr. from Kenistoag=rising sun).

AN OLD INDIAN



YOUNG ALASKA, SHOWING
ESQUIMAUX (LEFT) AND
INDIAN COSTUMES

ALICE ANTHONY AND THE TSUL
("LITTLE ONE")

These Indians believe that the world was originally one huge ocean. The only living thing was a mighty bird which descended upon the water, and on his touching the surface, the dry land rose up from below the water. The bird then called all the different kinds of animals and birds from under the earth, except men, who were produced from dogs. He gave an arrow, as a token, with strict injunctions that it should not be moved. The men were foolish enough to take it, which so enraged the bird that he never returned to earth again.

They have a tradition that they formerly inhabited some other land from which they were driven by most terrible people (presumably the Cree). In flying before the invaders they crossed a lake with many islands, and there they suffered much from cold and privation.

TATSANOTINNE (people of the scum of water).

Also called: Yellow Knives, Copper Knives, Red Knives, Birch-rind Indians, Couteaux Jaunes, Gens du Cuivre.

The expression 'scum of water' was used by these people to describe native copper, of which they make knives and needles.

Their range is wide, running east from Great Bear Lake into the Barren Lands that stretch to Hudson's Bay.

The Yellow Knives live on the caribou and musk-ox, following these creatures throughout the year. Very little is known of their traditions besides the one myth that copper was discovered for them by a woman who had been abducted to Siberia by an Esquimau, and who, on returning with her child, discovered a volcano belching forth molten copper.

A sub-tribe, known as the Caribou Eaters, live entirely on the herds of these animals in the Barren Lands to the east of Slave River.

NAHANI (people of the west).

Also called: Déné des Montagnes Rocheuses, Kunana (Tlingit), Montagnais, Rocky Mountain Indians.

These people inhabit the upper valley of the Liard, the Nahani River, and the Rocky Mountain Range as far north as Gravel River, North-West Territory, and Stewart River, Yukon Territory.

They are a hardy, virile people, but have suffered much from white influence. They are hostile to strangers, and many white pioneers have been done to death by them. This tribe was for many years under the complete domination of one woman, supposed to be partly of European descent.

Sub-divisions: Sazentina, Titshotina, and Casca.

CHIPEWYAN (pointed skins).[1]

The term Chipewyan is usually given to the Indians inhabiting the region between Lake Athabasca and Great Slave Lake. It is more properly used to describe the linguistic group of tribes occupying the whole region bound by the Esquimau country, the Rocky Mountains, the lower Mackenzie, and the Churchill River. This includes the fore-mentioned tribes Kahtchogotinne, Thlingchadinne, Etchareotinne, Tatsanotinne. It also includes the Athabasca proper and the Desnedekenade (called the Chipewyan proper).

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[1] From Cree: chipwa=pointed, wyana=skin, alluding to their shirts with pointed tails behind and in front.

THE TAKUDH KUTCHIN

THE TAKUDH KUTCHIN

THE origin of this nation, and even that of the whole Athabascan group to which they undoubtedly belong, is the subject of conflicting theories, so we enter a region that is largely guesswork.

Without quoting any of the many scholarly works on this subject, I will give a theory acquired by considerable acquaintance with these people.

The Athabascan group came across from Siberia or Manchuria at a time when the Bering Straits were probably dry land. Many centuries have divided them into the tribes they now form, split the basic tongue into different languages, and altered their modes of living.

But those Indians inhabiting Alaska and the Yukon Territory of Canada, the Takudh Kutchin, the Khotana, the Tanana, the Ahtena, and the Ai-ya-na, appear to be closer to the Mongol type than their neighbours of the eastern slope.

An ancient tradition of the Kutcha-Kutchin says that very long ago the people crossed the sea from the west, driving the previous inhabitants before them.

The Alaska-Yukon group must be a people racially connected with the other Athabascan tribes, but who have migrated from Asia in much more recent times. Those Athabascans who had settled in Alaska were driven out to the east while the newcomers made themselves masters of the whole peninsula.

This theory is supported by the brave and warlike disposition of the Alaska-Yukon nations contrasted with the timid, inactive nature of the tribes now living in the Mackenzie Valley.

I have seen photographs of groups of Thibetans, Samoyeds, Manchurians, and even Japanese among whom I could pick out accurate likenesses of Takudh Indians known to me personally.

The Takudh Kutchin have round skulls, broad, flat faces, and high cheek-bones. The eyes are very dark brown, small, and rather oblique. The hair is straight, coarse, and black or very dark brown. The skins are light brown, coppery, or red. The lips are full, the jaws heavy, the noses small and seldom aquiline.

The average height of the men is about five feet six inches, and women approximately three inches less.

In build they are light and wiry with thin legs and arms, very small feet and hands, and extremely rarely are the men in the least fat, except in the face. The women in many cases get fat while still quite young. Their hair does not begin to turn grey until extreme old age, and neither sex ever goes bald.

Before the white men came in they were a very warlike people, armed with bow, spear, dagger, and club.

They waged continuous warfare against their neighbours, the Tanana, Khotana, and Ai-ya-na, also among themselves. Blood-feuds were common. Old men who had become unfit for physical work were hanged. Female children were sometimes destroyed, but in spite of this practice the female population generally exceeded the male and polygamy was usual.

There was no marriage ceremony beyond the giving away of the girl by her parents and a potlatch. Senati, a chief of very recent times, had fourteen wives.

Their currency was shell beads (Nakieik) traded from tribe to tribe, probably coming originally from the Russians on the south and west coasts. Iron gradually found its way up the Yukon (or down it), and a few years ago, in a big camp discovered on the Chandalar River, were old-fashioned iron axe-heads inscribed with Russian characters. The Russians never reached the land of the Takudh Kutchin, for they never went above Tanana. It was only in recent years that the Kwikpak of the Russians, the Yukon of the Hudson's Bay men at Fort Yukon, and the Lewes of Campbell at Selkirk, were all found to be the same great river.

Before the advent of iron the Takudh people used stone axes, bark fibre for netting, and wood, bark, or horn for cooking and eating utensils. They also got woven tamarack-root vessels from the Ai-ya-na.

They were always keen at sports. Besides their natural occupations of hunting and fishing, they were particularly fond of wrestling and practised spear-throwing and archery.

When I think of the life those people must have led before they had the advantages of the white man's tools, I am filled with admiration. To cut all the wood in that bitter cold of winter with stone axes, to fashion snowshoes, cut babiche,[1] and do many such skilled tasks with flint knives: these astonishing things make one realize the hardihood and patience of this people.

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[1] From peau de biche: caribou raw-hide cut into fine string.

MATERIAL CULTURE

An essentially nomadic people, living by hunting and fishing only, the Takudh Kutchin have developed no industries and few arts.

Their occupation is the chase and their life revolves round the wild creatures of their native rivers and forests.

Now that modern times see them supplied with firearms, axes, steel traps, and metal cooking utensils, their life has become easier than before the white man entered the country and the people have degenerated considerably, though less, perhaps, than any other tribe.

One ancient Indian said to me: 'In the old days we used to hunt with the bow and spear. Our young men were strong in those days. We hunted the moose by running him down on snowshoes, and we could run all day, like wolves. Now our young men are become lazy and feeble. They prefer to hunt the moose in the fall, when he is easy to kill. They ride on their dog-sleds and are afraid to run all day.'

The bow and arrow are still used sometimes by women and children for shooting rabbits and ptarmigan, but within a few years the ·22 rifle will have superseded it completely.

The main sources of food supply of these Indians are the moose [1] and the caribou.[2] As the old man said, they do most of their meat hunting in September, when the bulls are fat and the rivers are still open for rafting the carcasses down.

[1] From Cree mūs-wa (he strips off), referring to bark and twigs.

[2] From carré bœuf (square ox), or from Algonquin kalibu.

A SUMMER ENCAMPMENT

They hunt the caribou mostly in August, when the pelts are at their best, but also in the winter and fall. The sheep are a less important source of supply, as they are only killed in the high mountains and are hard to transport over the glaciers and precipices. Also a sheep is a comparatively small animal and is more trouble to hunt than the moose or caribou. The Indians kill bear at all seasons, chiefly for their hides and fat but also because of their destructive habits.

Now that the white man has entered the Indian's domain, bringing all manner of new things, good and bad, in exchange for pelts, the natives spend their winters in trapping the plentiful fur bearers. Competition between the fur-traders has brought the Takudh Kutchin to a more progressive state than their neighbours in the east. They get better prices for their fur and a more varied assortment of foods, clothes, and other importations. They get modern rifles, too, but are careless about keeping these in good order.

After the fall hunt, the Indian trapper, with his wife, family, dogs, and other belongings, establishes himself for the winter in a little log-cabin on the bank of some navigable stream. He explores the country round, cuts his sled trails, and lays his traps. For the whole winter, except for the holiday at Christmas during which the whole sub-tribe congregates for dancing and 'potlatch' for about a month, he leads the hard but pleasant life of the trapper, driving his dogs round the line during the short twilight days, skinning and stretching his catch during the evenings. A good trapper will have a line perhaps a hundred miles long and take ten days going round it. This does not mean that the trapped creatures lie in agony for a long while ; they usually freeze to death very quickly and the trapped limb freezes immediately, relieving them of much pain. But it does result in more fur being destroyed by wolves and wolverines. The long line, however, generally produces the largest catch.

In the spring the Indian changes his camp and moves to some lakes where the musk-rats are commonest. He may, in two months, catch as many as three thousand rats, and as these sometimes fetch a dollar a skin or more, he will be making better money from the rats than from all the rest of his fur put together.

When spring turns into summer and the ice breaks up and the mosquitoes come out of the moss to plague man and beast, the Indians betake themselves to likely or tried places on the rivers to catch the salmon on their upstream run.

The salmon are by far the most important fish on the Yukon, but on the Arctic slope there are no salmon, their place being taken by the ' inconnu ' or ' cony,' a big and very good fish which runs up the Mackenzie and Peel Rivers in June and is caught until late August.

The ' King Salmon ' of the Yukon, a magnificent creature commonly running up to 70 and 80 lb., reaches the north bend in early July. ' Conies ' are also found in the Yukon, with herring and other varieties.

The Indians use nets, wheels, gaffs, and traps to catch their fish. The wheel was invented by a white man, but is now common on the Yukon. During the ' run ' a man may catch two hundred fish a day with wheel or gaff. The prettiest way of catching salmon is with the 'dip-net,' a big landing-net put over the fishes' tails. The Indian handling a tiny bark canoe with one hand and lifting a great, struggling fish out of the swift current with the other is a sight well worth seeing.

In the winter they net the whitefish under the ice on the lakes. This, as I can say from experience, is one of the foulest jobs that man can be called upon, even by hunger, to perform! It is bound to result in the man becoming saturated and semi-frozen.

HABITATIONS

The present-day Indians live very largely in log-cabins, only made possible for them by the coming of the axe. These cabins, owing to bad ventilation, are chiefly, responsible for their decline of health. The canvas square-tent has succeeded the skin tipi very largely, as it is so light and easy to manipulate. The box stove replaces the smoky little fire at the bottom of the tipi.

But the house of skins is not dead yet. In the caribou hunting camps the Indians still build them, the shape of an inverted teacup as seen from outside and spherical within.

They dig a hole in a deep snowdrift. Round the edge of the hole willow stems are fixed to support the skin roof. A hole is left at the top for smoke to escape by, but they have no smoke-flap. The inside walls of snow are lined with spruce boughs and skins, the fire is built between green logs on the ground in the middle of the tipi. It is always smoky in these skin houses, but they are warm and otherwise comfortable. The Indians sleep barefooted in these, and the children play great jokes on the old men. One trick is to take a live coal, and, by blowing, set fire to the long big-toe nail of a sleeping vieillard. Another is to tie one end of a long string to the toe and the other end to a piece of meat. The meat is then thrown out of the tent for the first hungry dog to bolt down. The result, as may be imagined, is highly humorous but often painful to the victim (and the perpetrators).

Camps are often built in this way with canvas instead of hides, and sometimes with a stove instead of the open fire.

All these, however, are permanent camps, where the people are going to stay several days or weeks. The traveller, who must make a fresh camp every night, must do so more simply.

All Indians, and many white men, build what is known as a 'siwash'[1] camp. The snow is scraped away with a snowshoe to leave a rectangular patch of bare ground. Round this the camper builds a windbreak two or three feet high of young spruce-trees at the back and sides, and lines the camp with the softer boughs of green spruce. In front he builds a big fire of dry logs, and if the night is particularly cold he builds another screen behind the fire so as to enclose the camp completely and throw the heat back. If it looks like snow he generally erects a slanting frame to stretch the sled-canvas over his head.

These open camps are very comfortable as long as the conditions are favourable. It is wonderful to look up from your warm fur blanket and watch the dancing of the northern lights and the twinkling of the stars.

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[1] Siwash: corruption of Fr. sauvage, frequently applied to any Indians or their methods and belongings.

But when it blows half a gale and the newly fallen snow flies through the air; when it is sixty below zero and a man must revolve like a roast before the fire to keep warm; when the wind changes and smokes you out of camp before breakfast is cooked; when the socks you hung up to dry are still frozen on one side, although singed on the other—at these times I prefer the little canvas tent to the open camp! It is less trouble to arrange, warmer and more comfortable to spend the night in.

The main art of northern travel is to make yourself comfortable, not to endure hardship and think that you are comfortable. Hardships come without being sought after.

TRAVEL

The Takudh Kutchin are nomadic, as I have said, and therefore methods of travel at the different seasons are of vital importance in their lives.

These come under two main headings, the dog-sled and the boat.

SLEDS

The favourite type of sled among the Takudh Kutchin is the flat-bottomed birch toboggan with the turned-up bow. A runner-sled is better on hard snow, and the toboggan is bad in wet places, but for all-round use in the soft snow of the interior the toboggan is the only thing. They vary from the little two-dog size, about five feet long and a foot wide, to nine feet long and fifteen inches wide, but the latter is too long for easy hauling. The usual thing for a team of four dogs is a toboggan six or seven feet long and fourteen inches wide.

Personally, I think that the birch is the best wood for a toboggan. I drove an old one for about fourteen hundred miles, about half of that distance being over the rough ice of the Mackenzie. It was beautifully supple and light, wore well, and, except when the thaw came on in April, slipped easily. The birch does not slip well over wet snow. Hickory, oak, and steel are imported by the traders for sled-making. Steel is best in wet snow but can only be used on runner-sleds. Hickory is heavier than birch, runs heavily in cold weather and well in warm. Oak wears well and runs beautifully in wet snow, but is very heavy. Each man to his taste: I prefer the birch unless for freighting big loads with a very strong team, when I should use oak.

Some toboggans are made like the ones in the photographs, with moose parchment stretched along the sides and with handle-bars. Others have the tanned leather wrapper with the head and tail lines.

The handle-bars are not put on to help the man running behind. Their real use is in helping the dogs and guiding the sled over rough ice, round bad corners, and over steep places. They are mostly seen on the Yukon side. The Mackenzie people favour oak toboggans with leather wrappers, but I can say from experience that the handle-bars save endless time and trouble in passing bad places. Some of the Mackenzie people laughed at our Yukon toboggans with the handle-bars, but, after seeing how little trouble we had in negotiating the big ice jams, started to build them on to their own sleds.

Other types of sleds are the ‘ Nome ’ sled and the ‘ Yukon ’ sled.

The Esquimaux use the former on the salt-water ice : long baskets on ivory runners, with brake and handle-bars, every joint tied with babiche. They are as supple as whalebone, and were it not that they are a nuisance in deep snow, they would be universally used in the interior also. The ‘ Yukon ’ sled is an importation of ’98. It is perfectly useless for cross-country travel, but is useful for hauling wood, etc., on good trails, or for river travel in spring-time.

Dogs

The number of dogs varies, of course, with the weight of the load and the size of the beasts. When driven in tandem, as they must be in the narrow trails of the wooded interior, the bigger the dogs the better. The farther a dog is removed from the sled the less traction power he has on it, and in the long trains the dogs nearest the sled do most of the work.

For hauling a toboggan four big dogs are quite enough. If the dogs are small, six may not be too many, but it must be remembered that the dogs’ food is generally the bulkiest and heaviest portion of the load.

Dog Harness

The harness is of great importance. That it should be of the best quality is obvious to any one who has had to stop and mend a broken trace in ‘ sixty below ’ weather. The Indians make harness of tanned moose-hide. They sew several thicknesses together after stretching the cut pieces with heavy weights, sometimes of four hundred pounds. Raw-hide is sometimes used, but the dogs like to eat it.

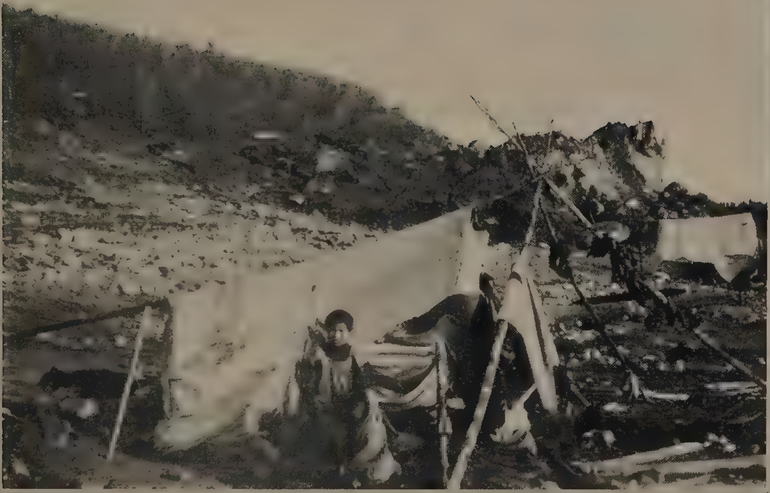
Of the various imported harness materials, the commonest in use is webbing. The only objection to it is that it will fray, particularly at the seams. Black harness leather is sometimes good but is apt to crack in the extreme cold. The best of all is a leather sold by a firm in Edmonton, Alberta, and largely used in the Mackenzie Basin. It is very soft and strong, being prepared by a process known as ‘ asbestos ’ tanning. What asbestos has to do with it I do not know.

COLLARS

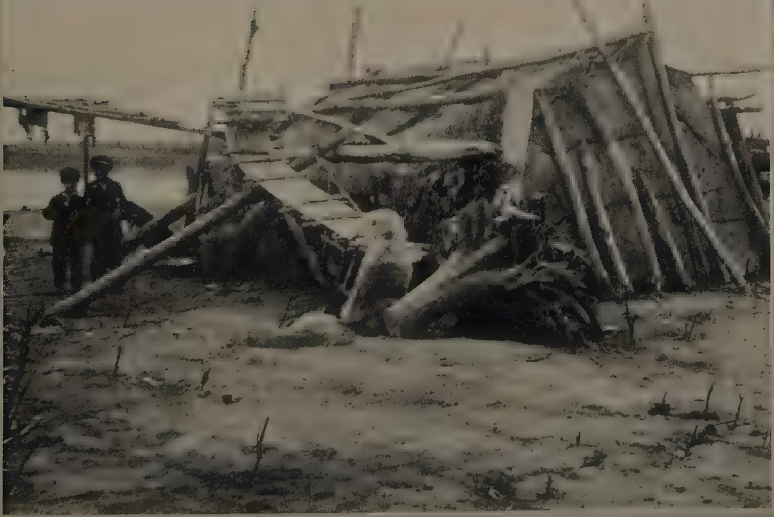
Of dog collars there are three main kinds. There is the Indian collar, the ‘ outside ’ collar, and the breast band, which is not a collar at all. Theoretically the breast band should be the best as it does not impede the breathing, but in practice it does not work well, for the dry snow gets under the band and forms ice in the fur of the dog, making a gall.

The Indian collar is a piece of willow, heavily padded by a moose-hide cushion stuffed with moose-hair. The two objections to this collar are that the snow is apt to stick on the rough moose-hide and that they are always made without a space for the windpipe.

The ‘ outside ’ collar, made of smooth cow-hide and shaped to the neck, like a horse collar, enables the dog to carry the full pressure on the sides of the neck and leaves his breathing free. A well-fitting collar should be just tight enough to be pushed over the skull without hurting the dog. To get it off, the skin has to be pulled away from under it. If it is too loose the dog gets a sore shoulder. When he loses flesh during a hard trip, his collar should be watched,



CAMP OF RABBITSKIN INDIANS



SPRUCE BARK HUT ON PEEL RIVER, WITH TOBOGGAN IN THE MAKING

and if necessary, wrapped with cloth to make it smaller.

The man who does not look out for things of this kind will find himself landed with a sore-shouldered, utterly useless (but still ravenous) dog, as the result of his own neglect.

SNOWSHOES

In November, when the snow gets many inches deep and hard to walk through, the people of the north wear snowshoes. These are generally made of birch, but the Takudh Kutchin, famous among other Indians for their good snowshoes, sometimes make theirs of willow. Broadly speaking, there are two kinds (although they are seen of every length from two to eight feet), the trail shoes and the hunting shoes. The trail shoes are small, to break down the soft snow for the dogs to follow and to run on the broken trail. They vary in length according to the size of the man, but an average size is about one yard, width nine inches. This is small enough to be handy and big enough to break trail without unnecessary labour. If two people, travelling with one dog-team, can wear shoes the same size and therefore exchange, they should have a pair about four feet long for the man ahead and another pair, much smaller, for the man behind the sled. The trail shoes are always made of birch, the filling being done with fine-cut caribou babiche. The foot filling is of much coarser babiche and is always the first to wear out on the rough ice.

The 'hunting' snowshoes are very large. A big man will wear shoes of at least six feet by twelve inches. The Takudh Kutchin make them of willow. They are not used for breaking trail, but for running over the unbroken snow, hunting or exploring. They only sink three or four inches into the powdery snow, and a man can follow the moose all day over deep drifts and through thick brushwood impassable in any other fashion.

But the beginner has an awful time! His toes get crossed or he puts one under a windfall and then finds his head at the bottom of a five-foot drift, his mouth and eyes full of snow, not to speak of his neck and mittens, while his feet stay firmly tied to the shoes which steadfastly remain on the surface!

The beginner in the art of snowshoeing has many trials and tribulations. To break a snowshoe beyond repair when it is getting dark and fifteen miles from camp; to walk into an overflow in the dark and find your feet wet and the snowshoes covered with about fifty pounds of ice and not know how to knock it off; sore toes from the snowshoe lines; sore heels from a shoe with too short a tread; *mal de raquette*, the most crippling thing of all, got from wearing the lines too tight; all these things, and more also, assail the luckless learner, who is probably tackling at the same time the infinitely more exasperating problem of dog-driving.

Snowshoe-making is an art in which the old men usually excel. The frames are cut out of very carefully selected wood and bent by steam. They are then dried by heat and trimmed to their final smoothness before they are carefully filled with babiche as fine as catgut. The Takudh Kutchin stain the frames with ochre, got from deposits on the Porcupine, and with dyes made by boiling cranberries.

DISTANCES COVERED

The wonderfully bracing Arctic cold has a great effect on the power of man to cover distances on foot. People often ask me what distances I have travelled in a day; when I tell them they look incredulous and I feel foolish and angry.

But fifty miles on the Yukon in March is nothing compared to fifteen miles along the London-Brighton road, or even thirty miles on the Highland heather, where is found the best air most Britishers can ever breathe.

To be up before the first streak of dawn; to cook breakfast, eat it, hitch up the dogs and run all day through the shallow snow of mid-November; to arrive at an Indian village, after having run the last eight miles in an hour along the hard trail; to stagger in, almost fainting with hunger, at 11 P.M.; to eat about ten pounds' weight of caribou steak, drink half a gallon of coffee and a pint of whisky; to go straight round to an Indian dance and dance right through till 3 A.M.; on top of all that to get up next morning as fresh as a daisy at 8 A.M.;—that is what the Arctic climate does for a man!

Can any one wonder that we love the cold in spite of all its drawbacks?

As far as actual distances go everything depends on the man and still more on his dogs. A good man cannot travel long distances behind bad dogs. But let them be good, give him a hard trail and 'twenty below' weather, not too heavy a load, and plenty of food for himself and his team; then he should do fifty miles every day for at least a week.

A few years ago Billy Clark, now a trader on the Mackenzie River, travelled 240 miles from Rampart

House, Y.T., to Fort Yukon, Alaska, without sleeping on the way. The time he took to do it I do not know, but I should think about sixty hours. An Indian boy who accompanied him collapsed completely and had to be left behind at a trapper's cabin. I quote this story because it was told me by my old friend, Willoughby Mason, not by Billy Clark himself.

In 1898 Louis Cardinal, now living at Fort Macpherson, N.W.T., covered 98 miles on snowshoes in one day, to win a race. A half-breed Scot named George Sanderson is said to have done the same feat on Slave River a few years before that. I never heard of any one doing a hundred miles.

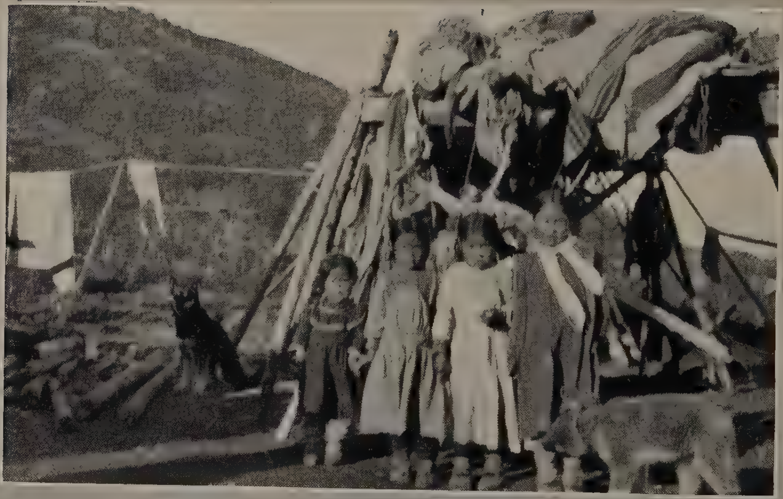
In travelling across country, breaking trail through the dry snow of midwinter, with rough ice and other hindrances taken in, twenty-five miles is a good average day. Some days will see one cover forty miles, sometimes a blizzard, an overflow, or a bad piece of rough ice will reduce the run to ten miles.

On an occasion when, with two companions and three sleds, I travelled from Fort Yukon, Alaska, to Fort Norman, N.W.T., we made the quite normal average of 22 miles per day, the greater part of it over very bad going and in the depth of an unusually cold winter. The distance is about 1100 miles. Our longest day was 40 miles, our shortest 10 miles.

PACKING

In the summer, when the snow is melted away and overland traction of any sort is impossible, the cross-country journeys have to be made with all the outfit on man-back and dog-back.

It seems hardly necessary to say that the best way to travel across country in summer is the Indian way :



TYPICAL INDIAN CACHE

EZIAS' WIFE, MARY

HALF-BREED WOMAN AND CHILD

with an absolute minimum. An Indian would sooner live hard and carry a light pack than live well and carry a heavy one. A few pounds of dried meat, a very light woollen blanket, a ·22 rifle, and enough tea to last him at the rate of three cups per day is all he will take. My own experience of packing huge loads over the mountains and through the nigger-head swamps confirms my opinion that the Indian way is the best.

There is generally plenty of small game in the summer, and the berries make a variety. The nights are not cold enough, even in the mountains in August, to necessitate much covering, and with a light pack a man can travel long hours. But it frequently happens that there is a certain amount of 'junk' that has to go with you for various reasons, and some of this can go on the backs of dogs.

An ordinary pack for a dog is thirty pounds. An experienced pack-dog will manage more than that, and I know of one dog that would carry seventy pounds, but I consider this cruel, as it is sure to injure the dog's kidneys in the long run.

The best dog-packs are made of caribou skin, the outsides being the shanks sewn together. The Esquimaux, who do it a great deal, make them of sealskin. The pack-lines can be moose skin, seal-skin, walrus, or whale (beluga). I think the latter the best.

Using dogs for this is a lot of trouble. Unless they are used to it they are certain to get galled, and they must be unpacked at the crossing of every stream or they will lie down, wet their loads, and increase the weight on their backs with the water. The best pack-dogs I have seen were at Fort Macpherson on Peel

River. Those Indians use them all summer in their caribou and sheep-hunting expeditions. One of these dogs, a very small husky, was running about, with a pack weighing at least thirty-five pounds, exactly as if nothing was on his back at all, while my dog, unused to the work, although much bigger and stronger, was staggering under thirty pounds.

The Takudh Kutchin carry their man-packs by means of a strap that passes round the shoulders and across the chest, being drawn very tight. I have tried this method and prefer the ‘ white man ’ way of packing with shoulder straps and a head strap or ‘ tump line.’

This way enables a man to carry far greater weights than any other. The back-pack, with the shoulder and head straps, is put on first, and another, larger bundle is placed on the neck, holding the head forward and pressing the tump line into the forehead. It is then tied securely by a second party.

Like this a good man can pack three hundred pounds over a ten-mile portage, or even twice that weight for a short distance.

The best packers in Canada are probably the Cree Indians. The Takudh do not practise it to such an extent, but pack very big loads with their curious chest-strap system.

BOATS

Summer travel in the north is confined, as far as possible, to the water. Many different types of craft are used, but the true Indian boats are the skin boat and the bark canoe.

The bark is peeled from the silver birch in the spring-time, flattened under logs, and then soaked in water before it is sewn round the framework. The ribs and beams are made of birch or spruce wood, sometimes of willow. The pieces of bark are sewn together with tamarack roots and the seams pitched with spruce gum.

A bark canoe is very delicate and needs careful handling. I was duck-hunting in a little bark canoe on one occasion, and carelessly discharged my gun through the bottom of it, with the result that canoe, gun, ducks, and myself were distributed in and under a rapid current about fifteen miles from camp. The Takudh Kutchin do not specialize in canoe work, having taken to the poling boats of the white man. What canoes they make are more often of canvas than birch bark. The Slave and Dog-rib Indians of the Mackenzie are the best canoe builders in the north. On the slow-flowing but windswept water of their great river and the big lakes that feed it, the light canoe is more serviceable than the heavier boat. The Slave Lake canoes are up to thirty-five feet in length and the Indians often sail across the lake in them. As it is two hundred miles wide, about five hundred miles long, and extremely rough in the slightest wind, this is no mean feat.

The Dog-rib Indians sometimes make small canoes from spruce bark, but these are not satisfactory.

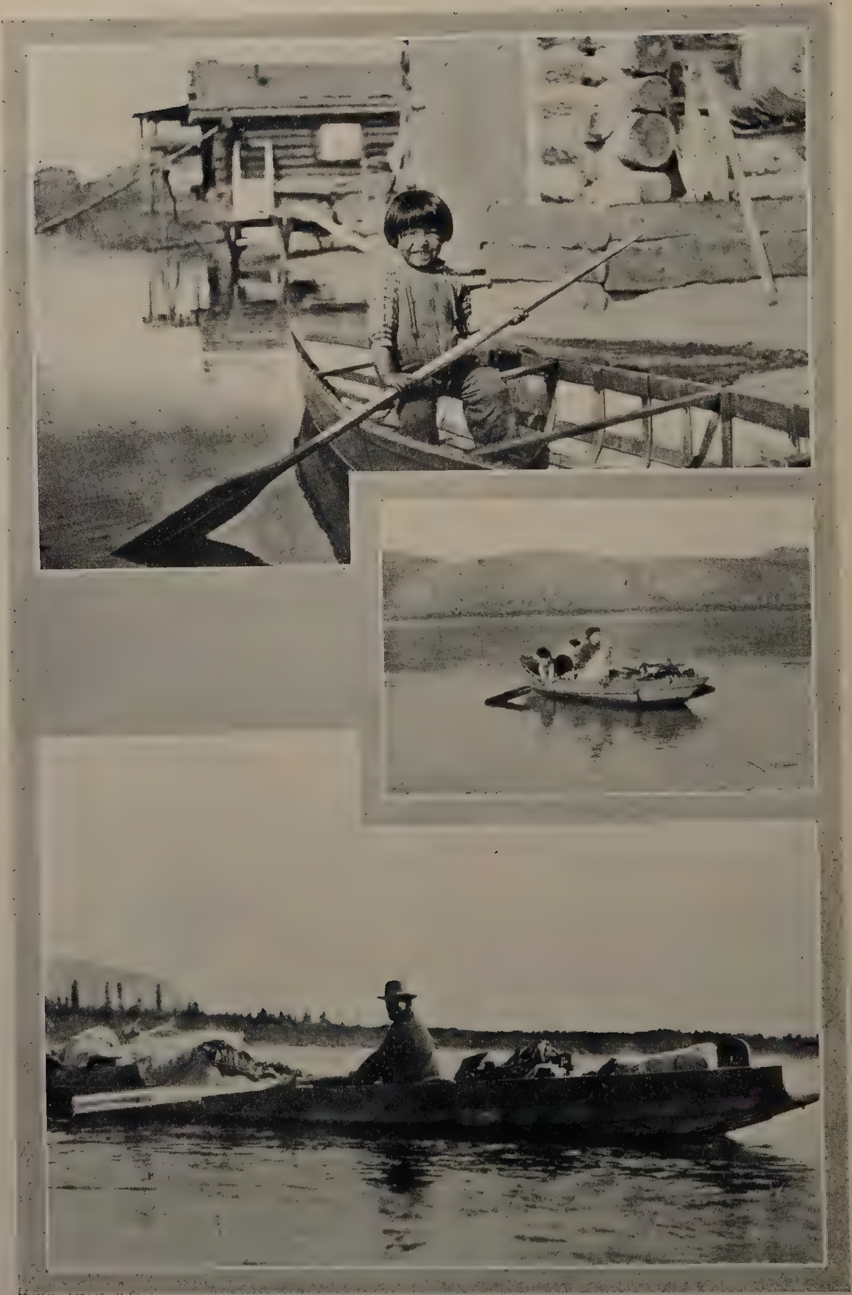
The canvas canoes are made like the bark, except that the canvas is stretched on in one piece, tacked round, and painted. This canoe is more easily made and kept in repair, besides being lighter. The Takudh Kutchin usually build them with flat bottoms for going over the shallow places, and instead of the bladed paddle they prefer to use two sticks, held together. They paddle with this till they get to shallow water, when they take a stick in each hand and punt the canoe along. The smallest canoes are about eight feet long and fourteen inches wide. The saying goes that if you shift a chew of tobacco from one side of your face to the other, the canoe upsets; so that shooting from these little craft requires practice, and the canoe must point the same way as the gun, otherwise the recoil will capsize it.

The skin boat is used for bringing meat from the hunting grounds when the river is impossible for a raft. The uncured skins are sewn together with sinew and stretched round a spruce frame with the hair inwards. These boats are sometimes big enough to float three or four tons of meat. Their advantage in bad water is that on grazing a rock or snag the tough slippery leather remains uncut. On arrival the skins, which soon rot from the damp, are cut up into babiche.

All the Esquimaux boats are made of cured skins, but the Indians have never learned the art of waterproofing leather.

One of the most convenient forms of river craft is the canvas scow. In one day two men can build a scow to carry a ton for a thousand miles. The frame is hewn from young spruce, the dunnage boarding consists of dry poles covered with spruce bark. The same kind of boat can be made from lumber, but the canvas is more often convenient. Soap-cum-spruce-gum makes a very good substitute for paint.

The various kinds of boats used by white men on the northern rivers do not require much space in these pages. The big poling boat, or sturgeon-head, is probably the best for upstream work. The 'Yukon' boat, a cheap, square-backed craft, is very convenient for floating downstream.



FLOOD AT FORT YUKON, 1923, TSUL IN CANVAS CANOE
FLOATING DOWN THE YUKON, A YUKON BOAT
HUNTERS COMING DOWN THE YUKON IN POLING BOAT

The Yukon boat is one of the few things which it is quite legitimate to steal. No one ever seems to bother about whom they belong to. I know an Indian who sold a Yukon boat (some one else's) to three different people. When he approached the fourth, however, he had a set-back, as it proved to be the rightful owner.

I know one man who had a fish camp just below Circle. He would walk to Circle up the bank, and for his return, ' swipe ' a boat and float down. At the end of the summer he had over a dozen tied alongside his camp.

When travelling upstream the boats or canoes are, wherever possible, ' tracked ' or towed from the beach. On a good river for tracking, like the Mackenzie, the men take turns, and with a light freight, may keep up an average of four miles an hour.

For downstream work the oar always beats the paddle except in rough or rapid water. Sailing is practised whenever possible, generally with a ' leg-o'-mutton ' sail, but sometimes with the easily improvised square sail, like that of a Chinese junk.

It is worth touching on rafts. In the fall the hunters go up to their chosen ground with a small boat of some kind containing their necessary outfit, and bring their meat down on rafts. These are built of dry logs of spruce, the bigger the better. They are roped or spiked together with all the butts pointing one way, and the boat is tied between the two longest small ends. The man in the boat rows all the time to keep the raft from slewing round, and another man controls it from the back with a sweep. As the water splashes between the logs, which may be completely submerged by a heavy load, two or more dry poles or ‘ bunks ’ are laid across to support a platform of small, dry poles, on which the load rests.

A final word may be said about the Esquimaux boats. There are two kinds, the kayak or bidarka and the umiak or woman’s boat.

The kayak is made of sealskin tanned with urine. It is completely covered over except for a round aperture in the middle for the man’s body. The man sits at the very bottom of the kayak, dressed in a seal-gut parkee. The hood of this garment is tied tightly round his face, and the bottom is tied round a rim on the boat, making the combination of man and kayak absolutely waterproof. They can turn head downwards in the water, and a twist of the double-ended paddle brings them upright again.

The umiak is a large craft propelled by sail or paddles. It is made of the skins of walrus, seal, sea-lion (‘ ugruk ’), or white whale. The women travel in this boat, taking all the dogs and other possessions with them, but the men stay in the kayaks, always ready for the chase with their bows and spears in special niches. After the skins have been on the umiaks for three years they are taken off and made into ‘ mukluks ’ or water boots.

DIET

The natural food of the Indian is flesh.

Although, at the present day, they vary their diet with flour, milk, sugar, dried fruits, and other foods which they get in exchange for their furs, they are mainly dependent on the meat and fish they kill themselves.

The Indian’s idea of cooking any kind of meat is to boil it till it just changes colour on the outside or to roast it until the first drip of fat falls. As they very often have to live on meat and nothing else, this crude cookery saves them from scurvy, a disease no Indian ever gets.

Before they got iron cook-pots they used wooden troughs, heating the water with hot stones. This hardly cooked the meat at all, and that is the way they still like to eat it.

Some white men, myself among them, prefer the Indian fashion of eating meat raw, but this preference does not include the various portions of a beast which the Indians consider the greatest delicacies. They will roast the hair off the head and then eat it all except the skin, skull, and ears. The nose, which, unless boiled into jelly, resembles a rubber boot, they think delicious. The brains are eaten raw and tepid, also the eyes, while they think less of the tongue, which really is good.

From the body of the animal, instead of first cutting a good loin-steak, they take yards of intestines, which they chew with the greatest relish. To them the best part of the heart is the aorta: to me it tastes like oilcloth.

I have seen an Indian, who had not eaten fresh meat for some time, throw himself on to the carcass of a newly gutted caribou, scoop the hot blood from the body with his hands, drink about a pint of it and rub it all over his face.

But although they eat these curious things by preference, they do not waste the rest of the meat. If the weather is cold enough, September or later, they keep the meat fresh to eat through the winter. In summer it is cut into strips and hung in the sun to dry. A smoke-fire, built below it to keep off the flies, adds a pleasant flavour to the meat. The Indians are very clever at cutting along the grain of the flesh, so as to get the strips as thin as possible.

Dried meat is best eaten raw. It is a concentrated form of food and a little goes a long way. The loin of a cow-moose, well dried, can be very tender, though the rest is very tough, rather like fibrous leather.

To cook dried meat spoils it, but if you want to do so, soak it in cold water all night and boil till quite soft in the morning, otherwise you might as well chew an old tyre.

Pemmican is a useful food to take on any trip. It is made from dried meat, pounded into short, loose fibres between smooth stones and mixed with grease and berries, then pressed into wooden bowls and left to solidify. Good pemmican is quite enough food without anything else.

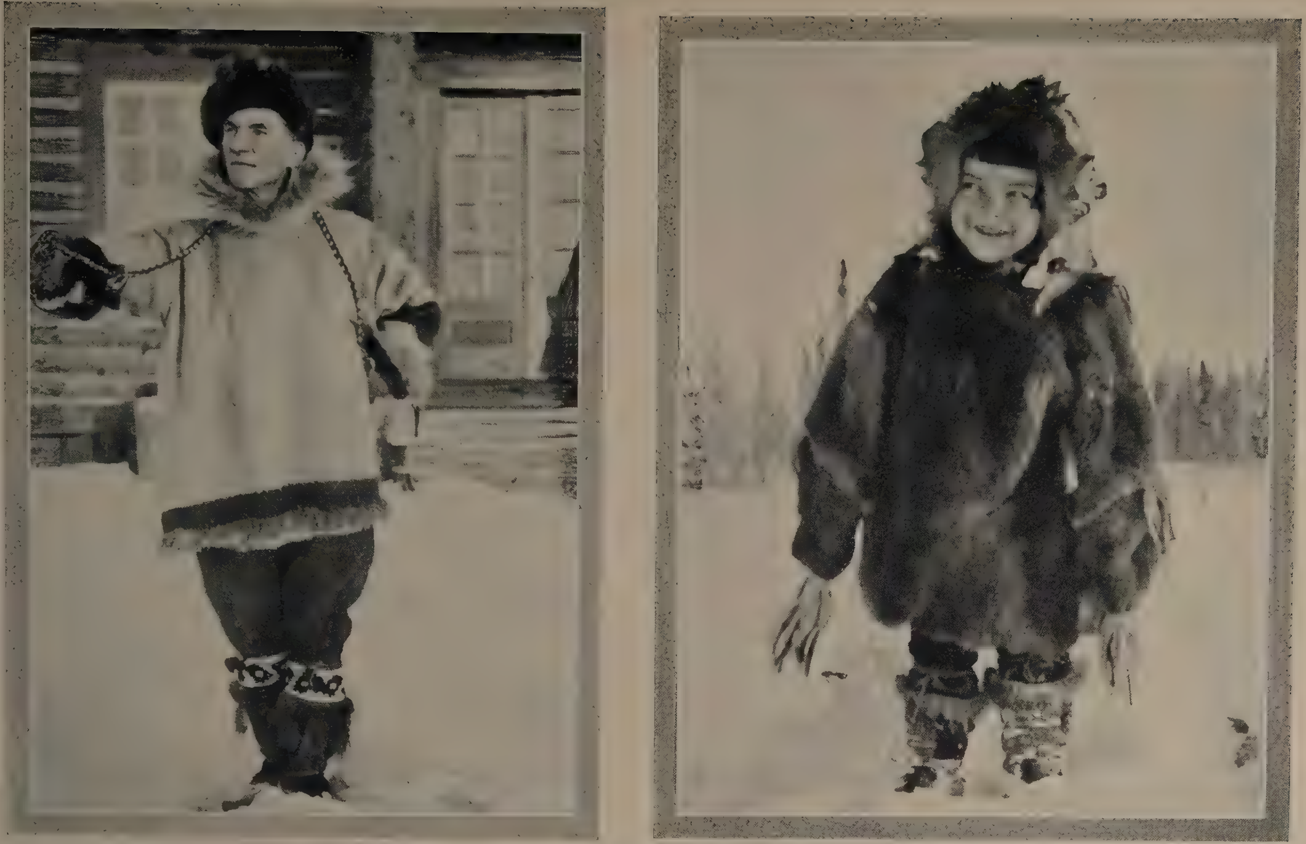
To dry fish they are split down each side of the backbone, the three pieces remaining joined under the tail. The flesh is sliced across in parallel cuts, about an inch and a half apart, down to the skin. This allows it to dry quickly while the skin holds the flesh together. Cooking spoils them.

The Indians eat a lot of fresh fish, generally boiled, sometimes roasted over a fire.

Grayling or ‘ bluefish ’ are baked in ashes. Salmon roes are always eaten, and the tit-bit prized above all others is the liver of the loche, an otherwise poor fish.

Another favourite delicacy is the dark, strong meat of the porcupine. Marrow is carefully extracted from moose and caribou bones.

Of native vegetable food the Indians only eat berries. There are four kinds : the blueberries, ‘ high bush ’



COLD WEATHER KIT

and 'low bush' cranberries, and red currants, but for some superstitious reason the Takudh Kutchin will not eat the currants. Of the other three the blueberry is easily the best. The women keep stores of them frozen through the winter.

Under stress of hunger, the Indians will, of course, eat anything. Leather, babiche, dog, fox, weasel, any filth goes down if the man is hungry enough. I never heard of a Takudh Indian resorting to cannibalism, though this is quite common among the Dog-ribs and Yellow Knives of the Mackenzie and Barren Lands.

On Great Slave River, last summer (1922), I saw a party of Yellow Knives come into Fort Smith who had missed the caribou migration and had been forced to halve their number by cannibalism. No Indians eat human flesh unless under stress of starvation.

Imported foods have, on the whole, had a bad effect on the Indians. They have become particularly fond of tea, tobacco, and flour. This does not hurt the older people, but seeing children of five, confirmed drinkers of tea boiled for an hour and stewed all night, and chewing black plug-tobacco, makes one realize that they carry these habits beyond moderation.

Most of them now use some form of bread, but generally bake it so badly that the raw baking-powder or sour-dough in the middle of the bread continues to ferment in the eater's stomach.

They have learned the value of bacon and use it very largely, but the only bacon the traders sell is of very inferior quality, generally 'sow-belly,' 'pay-streak,' etc.

But the general result of the imported food is degeneration, as can be seen by contrasting the Indians of the Chandalar, who live entirely on the caribou, with the Slave Indians who live very largely on imported food, since the caribou have left the Mackenzie River. Of course, the Slaves were always a greatly inferior race to the hardy hunters of the Endicotts, but their health has declined dreadfully since the white man entered their country, while the Chandalars, who see little of the white man, have improved their circumstances by occasionally trading with him.

CLOTHING

In such a rigorous climate as that of the land of the Takudh Kutchin clothing is of paramount importance.

In the old days, before the Yankee trader brought in cheap cotton goods, the Indian wore skin clothing all the year round. Except for coats, moccasins, and gloves, cotton has replaced the leather in the summer-time, but winter clothes have not altered much, except that most Indians wear ' guaranteed pure wool ' (cotton) shirts and underclothing, and, in many cases, cotton overalls. Canvas has to some extent replaced fur for ' parkees ' (hooded coats that do not open down the front but are pulled on like a shirt). The canvas parkee is enough for most weathers, but the fur is the warmer.

In the pre-trade days the Indians dressed in skins of marten, mink, musk-rat, etc., which they now sell to the traders. What fur they use now is generally caribou, for which there is no sale, as the fur only lasts for about one year. Rabbit skin (Arctic hare) is used for sleeping robes, and among the Peel River

Indians and the Rabbitskins of the Mackenzie, they are cut into strips and woven into garments, caps, and blankets.

Sleeping robes are made of many different materials. The best combination of lightness and warmth is the timber-wolf, about six skins to a big robe. Caribou has the disadvantage of losing the hair, which gets mixed up with everything and has a clinging smell.

Lynx and coyote are not warm enough for sleeping in comfort in open camp on a very cold night, and the fur rubs off. Rabbit skins must be reinforced with blanket or canvas, which makes the robe heavy. The imported eider-down is gaining popularity, and the Indians now make them of goose-down, but they are rather bulky on a dog-sled. Other furs are either too heavy or too valuable.

The fur parkees are generally made from skins of cow-caribou, killed in August. The children are clothed in whole calf-skins, sometimes with the little velvety horns and ears left on the hood. The trimmings may be of wolverine, wolf, fox, or bear. Wolverine is the most popular as the frost condenses on it in more powdery form. I prefer wolf myself, as it seems just as warm and does not tickle like the stiff guard-hairs of the wolverine, while fox and bear are colder on the face.

Trousers may be of furry caribou, or tanned and smoked. Personally I prefer the porous hide of a young moose. This allows ventilation, but is a sufficient windbreak. It is also very light and supple. I wore one pair for about eight months and never took them off, except on the few occasions on which I slept under a roof.

Moccasins are made of smoked and tanned moose-hide. The thick hide of the bull, killed in September, is best for summer when the bare ground wears them out quickly. For winter, the warmest are those made from the softer skin of a two-year-old cow-moose. The tops are of caribou leather. A form of snow-boot, generally called ‘ husky ’ boot, is worn by the Takudh Kutchin, which I prefer for winter use as the snow does not get into the tops. The legs are made of caribou or wolf leg-skin, the feet are of moose or bull-caribou.

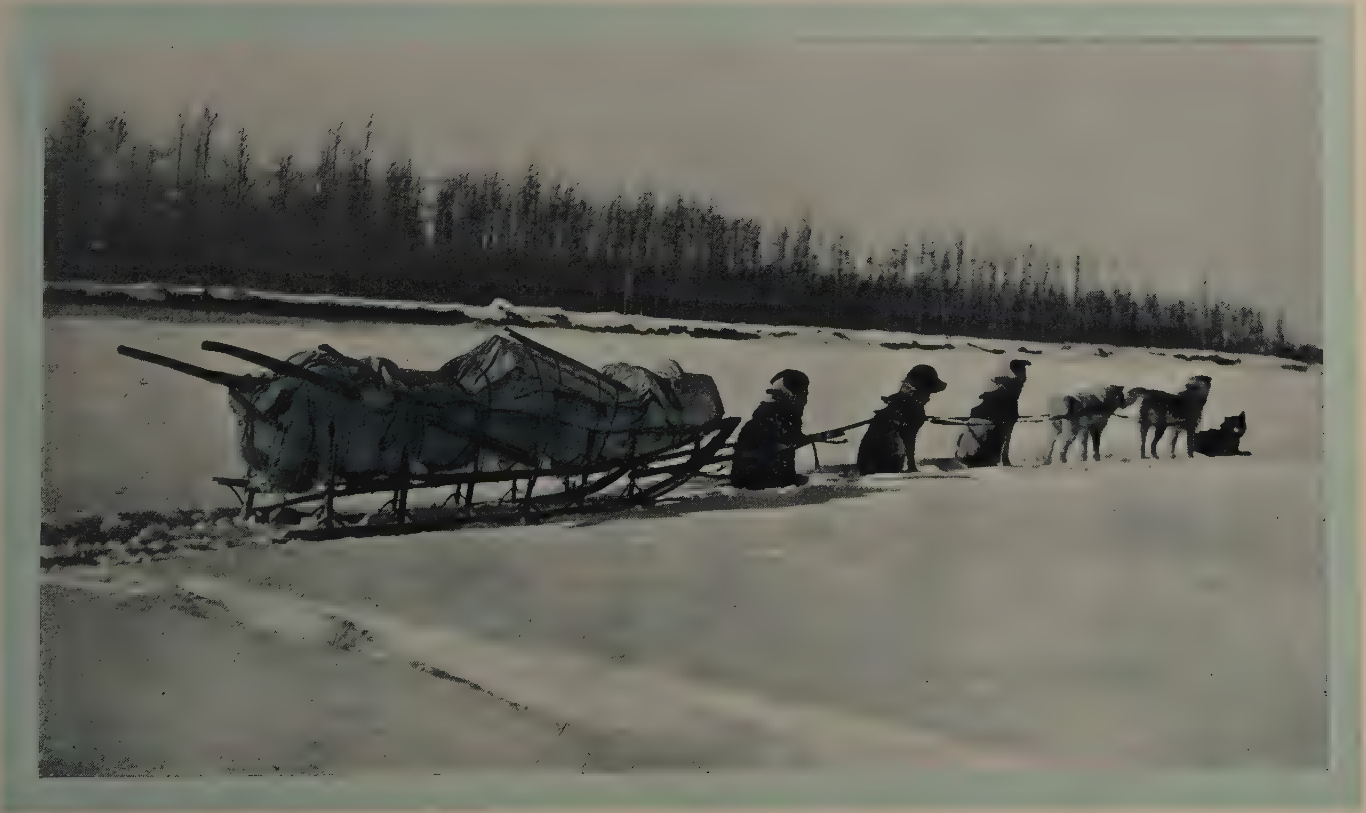
Caps, made after the Russian style but always with ear-flaps, are of marten (sable), beaver, musk-rat, lynx, or wolf. Marten is the best but is too expensive for most Indians. Imported woollen caps, or ‘ tuques,’ are worn very largely.

Mittens are made of moose-hide and lined with blanket. Some have fur outside, lynx paws, or strips of beaver, others are beaded. The warmest mittens are of caribou skin, the hair inside, but these do not stand much wear. Socks are of caribou skin, rabbit skin, or wool.

The women generally wear cotton print skirts and long parkees, but some still wear skirts of caribou skin, tanned white. They do not wear hats or caps, but always coloured handkerchiefs or shawls.

In the winter when the green and white becomes monotonous to the eye, the brightly coloured decorations of the Indian garments are very welcome. On the Yukon beadwork is the most common. The women take endless trouble sewing these beads, in very ornamental patterns, on to moccasins, coats, pouches, mittens, etc. They also use dyed porcupine quills, silk, coloured horse-hair and dyed moose-hair.

The best quill work is from Peel River, while the



UNWIELDY LOAD IN A NOME SLED

Mackenzie tribes have adopted silk embroidery on leather, even for their dog-harness. The moose-hair work I have only seen on Slave Lake. The women plait coloured wool very cleverly for mitten-strings, etc.

All these ornamental things may sound rather absurd, but there is one very good reason for them. For instance, a man drops his whip in the snow: he might lose it were it not for the coloured wool on the thong to catch his eye.

It is harder for the white man to clothe himself suitably than it is for an Indian, who sweats very little. As sweating is dangerous in extreme cold, his chances of freezing are less than those of the perspiring southlander. Some white men sweat more than others. ‘A’ hardly sweats at all, has scaly feet, and must wear fur clothing and socks to keep warm. ‘B’ sweats too much in fur. He wears tanned leather clothes, a canvas parkee, and blanket socks. ‘C’ sweats in whatever he wears, consequently his life is in danger on any cold day.

It may sound funny to talk about sweating in a temperature of −60° F., but dog-driving is far harder work than stoking a furnace. A man is bound to sweat a certain amount and he must halt sometimes. Then, if he is wringing with perspiration, he must build a big fire or freeze.

I myself belong to ‘B’ class. After trying everything I took to moose-hide breeches and shirt over heavy woollen underclothes, blanket socks next my feet, and two pairs of woollen ones. Over the top of this I wore moccasins or ‘husky boots,’ a light canvas parkee, and a fur cap.

For very cold days I had a parkee of Hudson’s Bay Company blanket, while for anything worse than

−40° F. with a strong wind I would wear the canvas over the blanket.

Of course these garments are only suitable for a man driving dogs, and snowshoeing all day. Sitting on a horse-sled a man must always wear fur.

TEAM DOGS

I HAVE already described the dog-sleds, but have not said much about the dogs themselves.

They can be divided roughly into three classes: the Esquimau or 'Husky,'[1] the Indian or 'Siwash,' and the 'white man' dogs.

The husky is the only one which has a true type. They are small, averaging about seventy pounds, short-legged, thickly furred, plume-tailed, with small prick-ears and a rather wolfish appearance, and may be any colour, but white and wolf-grey predominate. They have thick mats of hair between the toes, the ears are well furred inside and out, the shoulders heavier and the neck thicker than in other breeds.

Individual dispositions vary from wolf-like ferocity to perfect docility, but they are mostly bad-tempered, vicious, treacherous, thieving, pugnacious, and wonderfully cunning. If well treated, however, they will respond with genuine, though undemonstrative, affection.

Most of them have a very hard, bitter life of toil, fighting, hunger, cold, and mosquitoes. Bred to the law of 'survival of the fittest,' the weakest dog goes down, either to hardship, a blow from an axe, or the fangs of the other dogs.

Probably the husky dog is capable of more work, in proportion to his weight, than any other mammal.

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[1] It must be remembered that Esquimau people are locally referred to as 'Huskies.'

He can haul twice his own weight for long hours over the trail, day after day and week after week; he can sleep comfortably in the snow when the fiendish cold hides him under the fog of his own breath. He can pack half his own weight every day, through twenty miles of nigger-heads two feet high, under the broiling sun and the haze of mosquitoes. He can go without food for days and days and still haul the sled through the rough ice or forest. He can eat anything from his own mother to a live pike, and from seal-oil to tanned leather.

Curiously enough, a husky dog will endure famine sooner than eat bread. Their natural food is fish, meat, and blubber. I fed a team of these dogs on flour-bannock for a full week without their doing more than scratch it. They preferred to starve, although they were working hard all day, until I was able to replenish my supply of dried fish.

There is an erroneous tendency in Alaska to refer to all these dogs as ‘ malamutes.’ The ‘ Malemiut ’ are a tribe of Esquimaux inhabiting the Norton Sound, so that, although every ‘ Malemiut ’ is a ‘ Husky,’ a ‘ husky ’ is not necessarily a ‘ Malemiut.’ One ancient friend of mine used to call them ‘ them ’ar bloodee malamooses.’

The Indian or ‘ Siwash ’ dog is a mixture of every known breed in existence, with husky predominating. They vary greatly in appearance, but as a rule they are longer in the leg than the huskies, not quite so well furred, and a good deal lighter in build.

They are needed to haul through the soft snow of the interior where the short-legged husky is at a disadvantage.

The Indians generally do not treat their dogs as well

"EZOO"

"EZOO"

ONE OF MY HUSKIES

KER-À-WÀK (STICK-A-DOG-MUST-BE-TIED-WITH-BECAUSE-HE-EATS-A-RAW HIDE-THONG)

TCHSIDTSE, MY LEADER

as do the Esquimaux, particularly in the Mackenzie Basin. All the summer long the starving brutes scavenge round the trading posts, their release from that only coming with winter, which brings them hard work, frequent beatings, and a very insufficient ration of food. In some places the dogs are chained to stumps all summer, suffering much from thirst and mosquitoes. In winter they eat snow.

The poor siwash dog is generally a very pitiful object, sneaking about, a limping, red-eyed skeleton searching for offal ; let us leave him and pass on to the 'white man' dog, the real dog for the forest country.

I call him the 'white man' dog for lack of a better term, but as many Indians breed what undoubtedly answer to the description, the name is open to criticism.

The only difference between this animal and the siwash is that it is carefully bred for size and well fed whenever possible.

The Indian dogs breed haphazard and the Indians starve the puppies 'to keep their stomachs small.' The stomachs keep small, but so do the dogs.

A white man lets his puppies have all they want to eat and is rewarded by a big, strong team. The white dog-drivers usually get very fond of their beasts, treat them well, and get far more work and pleasure from them than the man who drives only with the whip. The commonest fault among white dog-men is that they pamper their dogs a little too much.

The best type is one which combines great size with a warm coat, well-furred feet, heavy shoulders and a good temper.

A dash of timber wolf will give the size, a little 'outside' blood, such as great Dane, mastiff, or wolfhound, gives the friendliness which makes them so much nicer to deal with. The rest of the animal must be husky, from whom he inherits coat, feet, shoulders, and toughness. Much wolf-blood makes the dogs too vicious and unreliable; too much 'outside' blood gives them weak coats, and most fatal of all, weak feet.

The sharp crystals of snow get between the toes, and unless the dog has the true husky feet you have to shoe him or he will go hopelessly lame. This shoeing is done by tying a small canvas bag round the foot to prevent the snow getting between the toes. It sounds simple enough, but when all your dogs require shoes you will have perhaps twenty frozen shoe-strings to negotiate, with bare hands, in the cold weather. The huskies never get sore feet.

The finest dogs I have seen come from the Chandalar of Alaska. Chief Christian keeps a she-wolf in captivity. His team of dogs have not more than a quarter strain of wolf, a small percentage of St. Bernard or some hound, and the rest husky. They are very big, running up to 120 lb., and seem very tractable. The Chandalar Indians are very careful of their dogs and give them plenty of food. A full ration for a large one would be any of the following, once a day:—3 lb. dried salmon; 15 lb. fresh caribou meat; 3 lb. beef tallow; 10 lb. fresh moose meat; 5 lb. dried moose meat; 1 gallon boiled bacon and rice; 2 lb. seal blubber.

Dried fish is the best food and the easiest to carry, except seal oil, which is only obtainable on the coast and must be mixed with caribou hair or rabbit skin, otherwise it is too rich for even a dog's stomach to hold. Cooked foods make the dogs short-winded.

Of course they can work and keep fit on half the generous rations I have specified. Too much food tends to make them over-fat and lazy, but a dog should be fairly fat as he then has something to fall back on ; the work soon fines him down.

Unless tied up at night, dogs are apt to fight and cripple or kill each other and (particularly huskies) to steal from the sled. If they are thin and hungry, which they usually are, they may cause untold trouble by eating the babiche from snowshoes and sled-lashings. They should be chained to a tree, and fed after chaining : this ensures each dog getting his ration.

They sleep in the snow (not under it, as Jack London says), but are undoubtedly more comfortable if a little green brush is thrown for them to lie on. This prevents the heat of their bodies from melting down into the snow all night. My team of huskies had never had this done for them till they came into my possession. They could not understand it at first, but soon learned to look forward to curling up on the spruce boughs. I used to stamp a hole in the deep snow with my snowshoes, which gave them protection from wind. These small things are very little trouble to do, and make a great deal of difference to their work. The dogs frequently have such a rotten time that it is the man's duty to treat them with every consideration.

The team of huskies I drove through the winter of 1920-21 were vicious and cunning as the rest of their kind, but they stood me in good stead through many days of hardship and suffering, particularly Tchsidtse, the leader.

Through weeks of terrible toil on less than half rations, through days and days of utter starvation and still more terrible toil, those dogs struggled across mountains, over rough ice, and through the thick forest undergrowth.

My old team is now dispersed. ‘ Kér-a-wāk ’ caught hydrophobia ; I shot him and he is now, without doubt, in Hell. ‘ Echo ’ succumbed to cold and starvation ; I had to kill him in the steppes east of the lower Mackenzie River. ‘ Pep ’ I sold, and he now lives in comfort with some white men at Fort Norman ; ‘ Rampart ’ is with some Dog-rib Indians on Great Bear Lake ; ‘ Siwash ’ was starved to death by a reptilian fur-trader at Fort Norman. ‘ Tchsidtse ’ alone remains in my possession. He is with me as I write, and has become a very respectable English citizen, greatly admired by every one. He was always very docile, and has quite got over his old habits of stealing, though he occasionally breaks the law of his adopted country by killing chickens.

I often wonder what he remembers of his old life of the trail. A cry of ‘ Marche ! ’ still makes him rush forward, as it did in the harness, but I doubt if he would wish to return to the hard work between the traces, the cold nights round the camps, and the short rations.

He has not grown a heavy winter coat since leaving the north, and suffers very little from the heat. It took him some time to accustom himself to a mixed diet, but he now eats biscuit, scraps, etc., like my other dogs.

When I went into Alaska I took with me a very

FRIENDS:
SHOWING SIZE OF YEAR-OLD PUP

bright Alsatian puppy. She held her ground very well, though she lay in a wolf-trap for two days in forty below zero. She lost two toes from that, and has since devoted her attention to family affairs.

She is now at Beaver Camp on the North Bend of the Yukon, perpetually producing puppies, about nine or ten to each litter. They are greatly prized by the Indians, as they make very good leaders, inheriting the intelligence of their mother. The whole Northern Yukon now seems to be permeated with 'Lena's' pups, most of which spend their time killing other dogs.

Lena herself has become rather matronly, and her present owner thinks the world of her.

SOCIAL LIFE AND ETHICS

Superstitions

It is no easy task to write on the habits and philosophy of these most interesting and attractive people, for their most outstanding characteristic is general inconsistency.

The missionaries have made a certain amount of difference to their ideas, by superimposing Christianity on their former belief in spirits and devils. Many Indians, particularly women, believe firmly in Christ, without shaking their old faith in the Tinjih Rui and other devils of their former creed. They will bury their dead with a Christian service, but place on the grave tobacco, dry meat, moccasins, etc., to help him on his journey.

They always believed in an after-life, but it is doubtful if they ever considered a benevolent Deity.

Shamanism was (and still is) practised universally among the Takudh Kutchin, and the Shaman had almost unlimited power, even over the chiefs, being the one man among them clever enough to see through the farce of his own profession.

Chief among the devils of the Takudh is the Tinjih Rui[1] or Brush-man.

He is very tall and thin with a black face and yellow eyes. He possesses miraculous powers of locomotion, and his chief amusement appears to be the capture and spiriting away of children and the violation of young women and girls. Sometimes a girl, about to become a mother, will gain enormous respect by the story of her abduction by the Tinjih Rui.

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[1] Derivation: Tinjih, Takudh for man; and Rui, black.

The Tinjih Rui never invades camps or clearings, but waits outside in the brush to jump on any one who comes out. Old women have told me stories of seeing the Tinjih Rui with such conviction that I think they have worked themselves into the belief that they really did see him!

Another class of their devils are the Mahoni. Ogilvie calls them 'Nahoni,' but the Indians pronounce the word with an initial M. (The creature may be Irish for all I know to the contrary.) Unlike the Tinjih Rui, the Mahoni inhabit a specified locality, the mountainous region round the headwaters of the Porcupine and Peel Rivers, sometimes wandering as far west as Kandik Creek. Therefore most of that country is avoided by the Indians.

The Mahoni are terrible wild men, with red eyes, and of enormous height, completely covered with long hair. They live without any fires and, whenever possible, eat human flesh. A Mahoni leaves man-like footprints three feet long, and will eat a whole birch-tree, torn up by the roots, only throwing away the twigs.

The Indians are far more frightened of these creatures than of the Tinjih Rui. The latter, being ubiquitous, is more or less taken for granted, and he is not so terrible as the cannibal Mahoni. A certain white man, married to a squaw, wished to build a cabin at the mouth of Kandik Creek, but the woman was so terrified at the idea that he was compelled to build it on the opposite bank of the Yukon.

Another 'taboo' country is the upper valley of the

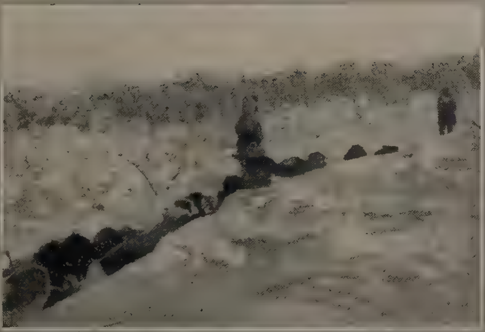
Snake River, a big tributary of the Peel. Little is known of the cause of this beyond the story that, one summer, a party of Indians came stampeding down the river to escape a frightful breed of creatures that walked on two legs carrying their heads under their arms.

There is a mountain of magnetite in an adjoining district supposed to be possessed of devils, owing to its magnetic properties.

These fears of the natives have the good effect of creating game sanctuaries in the best caribou and mountain sheep districts of the Yukon Territory.

A belief used to exist among the Takudh Kutchin that any person could make ‘ bad medicine ’ against any other person. This magic, made apparently by mere will-power, was considered as successful if it harmed any member of his family as if it reached the object himself. This caused much strife and blood-feud inside and between the tribes. Some men would finally reach the unenviable state of having a blood-feud with every person in their own tribe and being connected with intertribal quarrels also. With every man's hand against them, they became like hunted beasts, living in holes under the banks of rivers, not daring to light fires, killing any one they could, and finally dying of over-exposure or at the hands of enemies.

Many old men living to-day believe that these wild men or ‘ Na-in ’ still live in the woods, invisible and hostile to all mankind. A branch of a tree falls on a man : he says, ‘ A wild man threw it at me ! ’ Or a hunter, frustrated by an unusually wary moose, thinks, ‘ A wild man scared him away so that I should not get him.’ The old men are afraid of these long-dead



HARRY'S DOG TEAM
60° WEATHER IN MIDWINTER
PACKING DOGS: SUMMER TRAVEL

Ezoo Ring Sandy

'Na-in,' but seem to think little of the 'Tinjih Rui,' whereas the women and children, who fear the Brushman, do not appear to bother about the 'Na-in.'

There is a belief among the old Indians, or perhaps it is the wish fathering the thought, that some day an Indian Messiah will be born who will rid the country of the white men.

The great chief Kaihaenjuik of the Kutcha-Kutchin, who probably lived about two hundred years ago, is the model on which this belief is founded. He was a great warrior, living and dying under most dramatic circumstances, and is, I believe, a genuinely historical figure.[1] Whether this belief exists outside the Kutcha-Kutchin of the Yukon Flats, I cannot say. Apparently this Messiah will rid the country of white men, while keeping tea, tobacco, and metal implements.

The story of the Flood is found among the folk-tales of the Takudh Kutchin. They can show the 'ark' in the Endicott Mountains of Alaska! It is a formation of limestone roughly sheared into the shape of an open boat.

While writing of the superstitions of the Indians, I would like to add a word about the missionaries and their work among these people.

Whether or not they actually do any good, as far as spiritual enlightenment goes, I do not feel qualified to say. I think that the missionaries over-estimate their success in making genuine converts. But they have endless opportunity of doing these people good in other ways: by teaching them the elements of hygiene and child management, by curing or helping the sick, and by caring for destitute children or aged persons.

Some of the Missions do all these good things, while others do not; of my opinion of the Roman Catholic missionaries on the Mackenzie River the less said the better.

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[1] See story of Kaihaenjuik, p. 294.

The most beneficial establishment in the country is the American Mission at Fort Yukon. It was founded many years ago by Archdeacon Macdonald and carried on for the last twenty years, up till 1920, by Archdeacon Hudson Stuck, whose friendship I was privileged to enjoy during the last months before his untimely death from bronchial-pneumonia. Since that time it has been carried on by Dr. Grafton Burke, resident for fourteen years, and his wife. They have a small hospital up there, and have probably saved more lives than they can count (including my own).

Their door is always open, and they have a cheery welcome for any stranger, be he bishop or ex-convict. Their house is always full of about a dozen Indian children who have either lost their parents or are being kept to attend the little Indian school while their fathers are out on their hunting grounds. Mrs. Burke does all the cooking for them. The Doctor told me once: 'When Mrs. Burke and I had been married three months, we had fourteen children!'

Unlike most Missions I have seen, there is a continual atmosphere of cheerfulness, and if the Doctor and his wife were to leave Fort Yukon, a light would go out of the place which would never be replaced. The Indians in the village would all go to pieces, the mortality would increase 100 per cent., and the white people would lose two very good friends.

If ever two people gave up their lives to ministering to the needs of others, it is Dr. and Mrs. Burke.

CHARACTER

When dealing with an Indian one must bear in mind that he has the mentality of a child, with all its ever-changing moods. He is unreasonable, unreliable, cruel, shy, and impulsive: always a child in spite of his manly, and sometimes ferocious, appearance.

The Indians are naturally hospitable to a fault, but after having their hospitality abused by unscrupulous white men, they quite naturally become resentful. They are very cheerful, laughter-loving, and fond of gossip. Their type of 'funny' story takes an interminable time to tell and generally concerns the natural functions of the body, ending up without any point at all. But they can see a white man's joke, if not too obscure.

Persistently optimistic, they are fatalists and see no use in grumbling against what they consider inevitable. A Fort Yukon man of middle age, on getting a slightly poisoned thumb when only three miles from medical aid, coolly announced to his family that he was going to die. He went to bed, and three days later, died.

Another childish trait is their apparent ingratitude for favours, generally mere thoughtlessness, but when an Indian realizes that he has received a kindness he will always try to return it and will remain your permanent friend.

They are cruel to animals, not deliberately, but thoughtlessly. Most of them are learning to treat their dogs more kindly, which shows that their cruelty is not innate.

The Indian is frequently referred to as being 'lazy' by white men. From the white man's point of view this is often true. But from the Indian's way of looking at it, is he? I think not.

Most Indians do not take kindly to steady manual labour, not from laziness but simply because it is unnatural to them. You cannot expect a blood-stallion to enjoy pulling a heavy cart! They are born to hunt, fish, and move around, and will put great energy and thought into hunting meat, breaking trail for dogs, building camp, canoe-making, etc.

The Indians will often eat up their entire supply of meat before starting out to hunt for more. This is not laziness at all, but merely lack of foresight. They go on the principle of 'sufficient unto the day——' and never worry about the future until it arrives.

It always interested and amused me to try to fathom the depths of Indian imagination, particularly about the 'outside,' the southern land which sends them the 'unjyit'[1] and all his works.

To an Indian a picture of Piccadilly Circus or Broadway would be like a futurist portrait is to me—a mere splodge of shades. Of the size of the world outside they can form no idea, which is only natural. Peel River does not seem so far away to a Fort Yukon Indian as Edinburgh does to a Dorset farmer, although the distances are about the same.

As a rule they give little thought to what goes on 'outside,' but the exceptions are interesting. An Indian girl once asked me: 'Michael, what sort of cabin do you live in, outside?'

To simplify matters I described a four-roomed cottage of stone and slate of the kind common in Scotland. The description of the roof brought prompt criticism, and the bald statement that 'It

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[1] White man.

HARRY'S DOG TEAM

never does get cold, even in winter' was beyond her comprehension.

Esias, one of the most intelligent natives I have met, a Kutcha Indian, could read a little English. He used to pore over a book of poems of mine, continually asking the meanings of words strange to him. He said to me once, in English, 'I wish I was been educate!' He told me the following anecdote in English.

'Outside Indian, he sell it, cayuse (Indian pony). White man, he see it that cayuse, he like it. He say, "That cayuse alright?" Indian say, "Aha,[1] that good cayuse but don't looks good." White man he saying, "That 's alright, I don't scare for ugly cayuse if it 's good one." He buy it. One week. White man he 's come back. He mad like hell! He say, "My goodness, whatser matter, God damn! That cayuse she 's blind, can't see!" Indian he say, "I tell you it don't looks good!"'

This is worth recording as being the only story of its kind I ever knew told by a full-blood Takudh Indian.

I used to draw Esias pictures of animals he had never seen. I think he believed that the more curious creatures, elephant, rhinoceros, etc., were from my imagination until I showed him the connection with the mastodon, whose remains are commonly found in Alaska. The creatures that interested him most were the British deer and my descriptions of their habits.

It is not easy to get their ideas and beliefs from these natives. A stranger, or any one but a friend, would find his questions unanswered. If he asked an Indian about the Mahoni, for instance, the man would either keep silent or say he had never heard of them. Young men who understand white men's ideas on such things, might pretend to laugh at them as an obsolete superstition. Indians, like other folk, hate to be laughed at.

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[1] Yes.

The only way to see into the minds of the Indians is to live with them and watch them, to ask no untimely questions, but to wait for information or work round to it, gaining their confidence by proving yourself trustworthy, and by laughing at the right time. The most important thing is never to show anger to Indians, for they will probably not understand it, and it will certainly alienate their confidence. To learn their language gains their infinite respect. It is the greatest step towards learning their ideas, but not the easiest.

The Takudh Indians are not conspicuous for sexual morality. They are not so much immoral as non-moral according to white men's standards. Chastity among the women is uncommon, though not unknown, and the men do not expect it. Though they usually marry with a church service they do not feel in the least bound by the marriage laws, and natural children are as common as legitimates, nor considered in any way inferior. On coming of age a girl or boy is expected to ' go the round ' for a few years before marrying. I know one full-blood Indian whose wife has six half-breed children, but this appears to afford him no dissatisfaction. Puberty is reached at about the same age as among white children.

The women are very jealous, but the men not conspicuously so, although the Esquimau habit of exchanging and lending wives is not practised. This is probably because, among the Indians, the woman generally rules the home. The men are much more gentle and docile than their fiery-tempered consorts, who will gain their way even by assault with a dangerous weapon. A woman will, if thoroughly angry, bash a man's face in with the flat of an axe while he sleeps. Burning his clothes and otherwise destroying his property (in his absence) is a common way of retaliating on a person against whom they have a grudge.

The physique of the women is very good. Their looks deteriorate while still young, and they either get very scraggy or completely spherical, but they are capable of very hard work and undergoing extraordinary hardship. Child-bearing is easy to them. I never heard of a woman dying, or even becoming much weakened, by child-birth. Their families are very normal, seldom exceeding eight.

They are very affectionate and careful of their children, and wherever they fall short as mothers it is generally more through ignorance than neglect. They are, however, wonderfully ignorant in these things, and many children die as a result of such diet as barley-sugar and tea, varied by periods of starvation and excess. The children are as pretty as pictures and as jolly as puppies. They are no more mischievous than white children, and decidedly less noisy. They seldom cry, never without a good reason.

The Indians have one very bad practice which the Missions should do all in their power to prevent. Orphan children, generally girls, are adopted by some family and literally enslaved. The poor little things are continually maltreated, overworked, and often underfed.

As a rule the Indians spoil their own children. The words ' he no like ' are considered enough argument against anything, from spanking to tooth-pulling, being done to the child. Some notable exceptions to this show that well-disciplined and carefully reared children grow up healthier and pleasanter than the others.

The Takudh Kutchin are not a clean people, but it would be unjust to call them dirty. The more degenerate members of the tribe, who carry lice, are despised, for this reason, by the others. They do not wash much and never bathe (except the children, who swim in summer) but they seldom look dirty. The Mackenzie tribes are extremely unclean. The rigorous climate does not encourage washing, and the Indian is luckier than the white man in that he hardly perspires at all.

The chief amusements of the Indians are feasting and dancing. Every Christmas they hold an orgy lasting as long as their credit at the store holds out. The chief generally bankrupts himself on the big meat-feasts or ' potlatches.'[1] The bigger the ' potlatch,' the bigger the chief. They feast all day and dance all night, only finding time for sleep during the middle morning.

Their dances are very interesting to see and amusing to take part in. Many of them were introduced by the Hudson's Bay Company traders: some of the Highland dances, a most attractive step called the ' Red River jig,' which came from Manitoba, and a wonderful variety of quadrille, in which twenty or more couples will form one square and rush through this most complicated dance at the double, never making a

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[1] Feast (Chinook).

HARRY ANTHONY AND HIS FAMILY

SHOWING ESQUIMAUX WATER
BOOTS (MUKLUKS)

CARIBOU HUNTERS

mistake. The usual orchestra is a cheap fiddle played by ear.

More interesting than these are the original dances. There are several kinds of war-dances in which only men take part. They paint their faces and stick feathers in their hair.

One of these, called the Duck Dance for some reason I never fathomed, is danced by the young men, armed with clubs, spears, etc. They leap round a central figure, generally the medicine-man, who is beating on a tambourine and chanting a wild chant. They keep silent, but throw themselves into the most amazing contortions, grovelling on the floor at the low notes, leaping and reaching into the air at the high, always in time, always graceful in their movements.

Another is danced by the young men, also arrayed in feathers and paint, but in two sets, facing each other, generally in three rows of three, making eighteen to the figure. For this there is no tambourine, but they all chant. Taking turns, one side advances on the other, brandishing their weapons, holding themselves erect and uttering the most devilish yells. The other side retreats backwards with a cringing and fearful manner, but giving cries that can only be likened to the snarl of a cornered dog. All this chanting is in time and in tune. Generally they just move backwards and forwards till they tire, but sometimes one man will sing solo for a few seconds, advance by himself and be driven back.

The whole effect is very wild and weird, bringing to mind what is sometimes forgotten, that these people are only savage children and can never, at heart, be anything else.

In two other dances the women take part. The Rabbit Dance is a sort of aborted Sir Roger. The performers stand in two parallel rows, facing inwards, the women opposite their men. The couple at one end then move up and down three times, between the rows, to a jig tune; the woman then gets one row between herself and the man and he starts chasing her. The woman is meant to represent a rabbit, and her partner a pursuing lynx. To the accompaniment of shrieks of amusement and encouragement from the other people, he chases her round till she is caught. When each couple has done this it is repeated, but with the rabbit chasing the lynx.

The oddest of all is a thing called the Crow Dance. A man lies flat on his back, his feet flattened out at 9.15 and his hands spread to represent fins. He is supposed to be a dead fish, and generally looks rather realistic. A woman or boy, enveloped in a big black shawl, then comes on the scene. She (or he) is a crow and usually imitates its walk, croak, and movements to perfection, as she pecks the fish's eyes out and begins to eat it. Sometimes there are several crows and they fight and squabble over the fish. After a while a man, enveloped in a white sheet, swoops on to the little supper-party, uttering the raucous scream of the white fish-eagle. The crows flap away with cries of disappointment, and the eagle continues their meal. The play is brought to a climax by the fish suddenly returning to life and the eagle beating a disconsolate retreat.

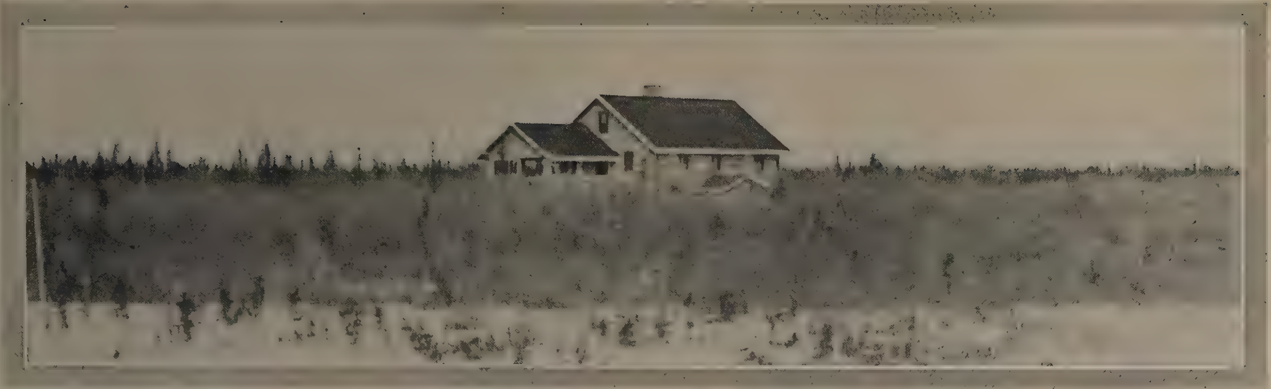
The Indians have always been good wrestlers and enjoy it, but their tempers are too hasty for them to be much good with the gloves. They are not in the least afraid of boxing, however, and some of them have learned a little from the white miners. They are rather slow in their movements, but can stand a lot of punishment. They ought to be better boxers than they are, being wonderfully quick on their feet, but they are too slow with their hands and forget to guard when they begin to warm up.

WHITE INFLUENCE

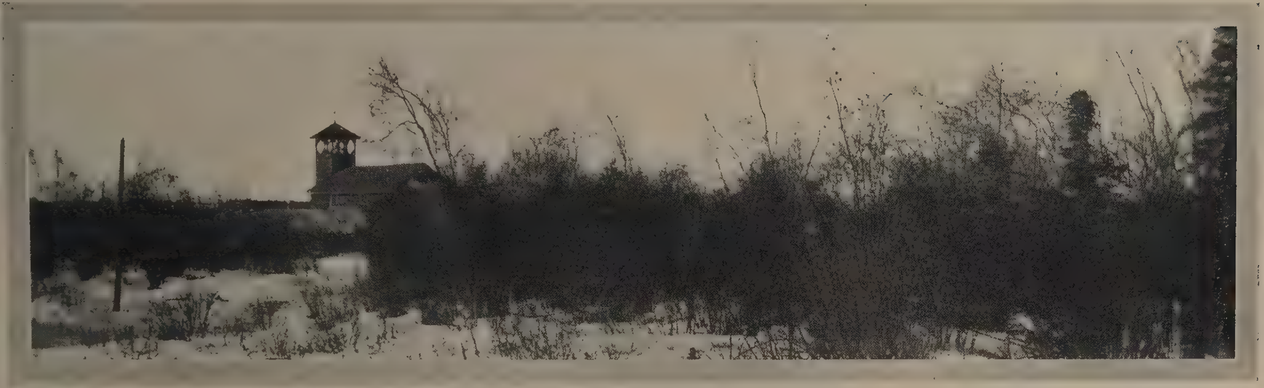
The general influence of white men on the Takudh nation has not been very bad. They have not been deprived of their hunting grounds and herded into reservations like the Indians of the Plains. Neither have they, except on the Mackenzie, come into too close contact with white men at the trading post. Nevertheless their numbers have been reduced by tuberculosis and influenza, and the general standard of fitness lowered by the log-cabins, the imported food, the easier life, the taste for alcohol, and the infection of gonorrhœa.

I think that tuberculosis, now very common among them, was really caused by the coming of the steel axe, which brought the ill-ventilated log-cabin. No doubt the worthless cotton goods, imported by the traders every year and sold at outrageous profit, do much to encourage the disease.

But, as opposed to these bad results, the people have undoubtedly gained much from the white man. Their lives are made much easier by the possession of axes, rifles, stoves, cook-pots, etc., and in time of famine or destitution they can always get foodstuffs on credit. Tribal wars and blood-feuds have ceased, their minds are broadened by contact with the whites and by more extensive travel than they were able to make when neighbours were enemies. Infinite



FORT YUKON MISSION HOUSE



CHURCH AT FORT YUKON

anguish, misery, and death have been prevented by the Mission at Fort Yukon alone.

Taking it all round, it is best for the Indians of the present day if they have the advantages of the white man's goods without coming into much contact with the white man himself.

The young men get spoiled and lazy, they copy the trader's thieving methods, they take to gambling, and will squander all their possessions on a hand at poker. They learn to like whisky, and, failing to get it, drink pernicious extracts. But luckily these spoiled young men are in the minority among most of the Takudh tribes. The greater part of them are still jolly, virile fellows, not afraid of hard work, and very capable of looking after themselves.

One very significant effect of the white man on the Indian is the gradual alteration of colour.

The Indian is not like the negro ; his blood is weaker than that of the white, and the half-breed, though brought up as an Indian, will show many white tendencies. The quarter-Indian is practically white, and the blood of the red man never 'throws back' like that of the black, but becomes absorbed.

Half-whites are abused all the world over as worthless creatures that show the worst of both races without the good, but among the Takudh Indians this does not seem to be the case. As long as he lives the Indian life, the half-breed is as good, if not better, than the full-blood. He has more fire, determination, imagination, more ingenuity and reasoning power. The toughest travellers in the North, next to the Scots, are the French-Canadian half-breeds.

But if he gets spoilt in the trading posts or mining camps, the half-breed is worse than the full-blood Indian.

As the future approaches and passes away, the Indian will undoubtedly vanish with it. His race will be bred out, absorbed by the stronger breed of the Caucasian, but his blood will still flow in the veins of the future northern whites. The Red Man's day is darkening into night, and his race is doomed to perish in exile from freedom.

On the farthest northern frontier, in the land of the Takudh Kutchin, he is making his last stand and losing in the fight. But his blood will carry on through the ages, giving to the future white men something of the cheerful, care-free nature of those who are, in spite of all their misfortunes and adversities, in spite of the hard, hard life they lead, among the happiest and most contented of peoples.

THE WHITE MAN IN THE NORTH

RAMPART HOUSE, Y.T.
ALL THAT IS LEFT OF LA PIERRE'S HOUSE
HUDSON'S BAY COMPANY GRAVEYARD AT FORT YUKON (1852–1924)

EARLY DISCOVERERS

In the year 1770 Samuel Hearne was dispatched by the Hudson's Bay Company to inquire into the foundation of the Indians' tales of the Nitha-san-san-dazé or Far-Off Metal River. Down that stream, now called the Coppermine River, he penetrated as far as a waterfall near to the coast. Here the party found an Esquimau encampment and Hearne's Indians proceeded to massacre the whole personnel. Disheartened by this, he turned back, naming that place Bloody Falls. In three journeys he had roughly located Bear Lake and some of the big lakes in the Barren Lands.

The next explorer to make a great discovery was Alexander Mackenzie. In 1789 he left Chipewyan and descended the Mackenzie River to Whale Island on the Delta, returning in the same summer to the Athabasca. His journal is before me as I write, and through all the unassuming modesty of the simply told story one can see the indomitable nature of the man who wrote it. He makes no comments on his actions beyond simple statements of facts, but his difficulties must have been enormous. Every Indian tribe he came across would either fly or show hostility. They one and all discouraged the journey, speaking of cataracts and all manner of cannibal man-beasts dwelling below. It was Mackenzie who, at the mouth of Rabbitskin River, first heard of the Yukon.[1] At

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[1] An Indian word meaning 'burnt earth,' from the volcanic ash with which the water is discoloured.

Arctic Red River he heard the same tale from the Takudh Kutchin or Digothi (quarrellers), as he called them. He was told that it was bigger than the Mackenzie, and that it ran west into the Great 'White-man' Lake, through a land of plentiful game. Mackenzie thinking, rightly, that this 'White-man' Lake must be the sea discovered by Vitus Bering in 1741, tried to induce some Indians to accompany him over the mountains, but they flatly refused, swearing that the country was overrun with savage people who would certainly kill and eat them.

It was not till 1843 that the Yukon was reached from the Canadian side. In that year Hunter Murray descended the Porcupine and established Fort Yukon at the confluence. The Kutcha-Kutchin proved hostile, and the white men fought them off from a stockade for some time. Finally they captured a man, beat him severely, and explained their friendly attitude, showing him what trade goods they had to exchange for furs. The prisoner was then released to explain to the tribe. He did so and peace was established.

Meanwhile Robert Campbell, another Hudson's Bay man, ascended the Liard River and made his way down the stream he named the Pelly, to the Yukon (which he named Lewes), and built Fort Selkirk, but in 1852 the Chilcat Indians drove him out. He went down river and proved that the Lewes and the Yukon were the same stream.

But in the meantime other people were getting busy at the other end of the river. Although Bering, a Danish navigator sailing under the Russian flag, had gained for Russia the title to Alaska and the Bering Sea, it was not till 1830 that the least interest was taken in the new territory. In that year the coast and the Yukon[1] Delta were explored, but in 1838 a Russian trader named Malakof ascended to Nulato in a bidarka[2] and built a trading post. The Indians were hostile and Malakof retired, but four years later Lieut. Zagoskin, of the Russian navy, rebuilt the post. The Russian idea in dealing with the Indians was that brutality pays best. It did not pay Zagoskin, for the post was stormed one night and he was cut to pieces, cowering in his blankets.

Following Mackenzie's great discovery, the next important expedition was that of Sir John Franklin in 1820. He reached Coronation Gulf and mapped some of the coast, returning by Great Bear Lake. In his final and most historic attempt to make the North-West Passage, the ship reached Lancaster Sound in July 1845, but was never heard of again. It is now believed that they reached Alaska, and many search-parties were sent out, prominent among the names being those of Back, Rae, Richardson, Simpson, and Dease. It was Back who descended the Great Fish River from Slave Lake to the coast; the river has been renamed after him.

Among other searchers for Franklin was Lieut. Barnard, R.N., who entered the mouth of the Yukon and ascended to Nulato. He intended to outfit at that post for an expedition into the Endicott Mountains, but was still on the premises when the attack was made by the Indians. Barnard seized a musket and defended himself, but Zagoskin was no help, and the luckless lieutenant was disembowelled by a man who crawled in along the floor. Their graves can be seen at Nulato to-day, the earliest white men's graves in Alaska, the next being those of the Hudson's Bay men at Fort Yukon.

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[1] Known to the Russians as the 'Kwikpak.'

[2] Kayak (Bering Sea name).

The Hudson's Bay Company were flourishing at Fort Yukon, which was the finest fur centre they had ever dreamt of. Always the cry was sent back : 'Send beads and guns, nothing but beads and guns.' (The guns were sold for their height of beaver or marten skins, packed flat.)

They shipped their materials all the way down the Mackenzie and over the mountains to Lapierre House on Bell River. Thence it descended by raft or sled to Fort Yukon.

When the United States bought Alaska for a little over seven million dollars (Treadwell Mine, Juneau, has produced more than that in one year), the Hudson's Bay Company were compelled to leave Fort Yukon, as the new frontier left it in Alaska. So they ascended the Porcupine and built the Old Rampart House at the mouth of Salmon-Trout River. When a Government survey proved them to be still sixteen miles from the boundary, they moved to the present, or New Rampart House at the most favourable situation for a trading post on the Porcupine River. The actual boundary line runs between the buildings. At the present time there lives an old Indian who sleeps with his head in Canada and his feet in the United States territory. Before many years the Hudson's Bay Company withdrew altogether from the Yukon Basin.

Since that time the development and exploration has gone on, to the east of the Rockies by the Hudson's Bay Company and to the west by private or Government enterprise. In the Mackenzie Basin the Company have been busy developing the fur trade, but

HALY'S
ROAD HOUSE

THE CHATEAU DE HALY, FORT YUKON
ARCTIC CAFETERIA: COOKING MEAT OVER AN OPEN FIRE

absence of competition has made them slack in other activities. The Company and the Jesuit missionaries have always tended to discourage rivals in their country. But on the Yukon side individual enterprise held the field and things went apace. Foremost among the pioneers were Alfred Mayo, Jack McQuesten, and Arthur Harper, independent traders, William Ogilvie, surveyor to the Canadian Government, and John MacDonald, English Church missionary. Alfred Mayo is still living at Rampart, Alaska, the ‘ oldest timer ’ on the Yukon.

It had been known that coarse gold was to be found in the stream-beds long before it occurred to Harper that it was worth mining. He was the pioneer miner of the whole country, and within the next few years camps had sprung up at Circle, Forty-mile, and on the Stewart, even as far afield as Tramway Bar on the Koyukuk. It was not till 1896 that the Klondike strike was made.

The first man to discover gold in the Klondike Valley was Bob Henderson, but the big strike on Bonanza Creek, the richest branch, was made by George Carmack and his two Indian brothers-in-law. Bob Henderson staked his claim out at the head of Gold Bottom Creek (since misnamed Hunker Creek), and Carmack went to Forty-mile with the news of his strike without telling him. This was by reason of some opprobrious remarks Bob had made about ‘ squaw-men ’ and ‘ Siwashes,’ and the result was that he did not get even the ‘ Discovery ’ rights on Gold Bottom! He still lives at Dawson and never ceases to abuse George Carmack for having ‘ put it over ’ on him. But there is, doubtless, much to be said for Carmack’s action in that matter, for Bob was an intolerant man and never noted for restraint in his language, and must have 'got George's goat' on a rather sensitive point.

On the other hand, it was, no doubt, hard on a man to have worked hard and discovered a new field, to get only an ordinary (and not very rich) claim, while others staked 'Discovery' (double-sized) on every fresh creek. This was because Andrew Hunker had located on the ground below him and reached the mining office first! We can hardly blame Bob Henderson for feeling bitter.

The story of the mushroom growth of Dawson City, the fabulous richness of the creeks, and the stampede of 1898-99 are too well known and are too long a story to tell here. The interest of the whole world was turned to the little sub-Arctic river along the banks of which the early pioneers had hunted and fished with never a thought of the wealth beneath their feet; the 'chechaquos'[1] flocked in and died like flies along the trail, the survivors came out disgruntled, or stayed in and got rich. The gold was found in the most unexpected places—on the tops of hills, under the floors of old cabins, anywhere and everywhere—running up to five hundred dollars in a pan (two shovels of dirt), perhaps a record nowhere touched in the history of gold-mining.

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[1] Tenderfeet.

THE WHITE MAN

Let us now praise famous men,
  Men of little showing,
For their work continueth,
And their work continueth,
Broad and deep continueth,
  Greater than their knowing.
KIPLING.

SERVICE, in those curious works of his which combine lifelike descriptions with the falsest of impressions, writes of the 'low-down' white.

Later authors have gone further and painted the average white inhabitant of the Northern Territories as a depraved and useless brute, drunken and dissolute, spreading disease and alcohol among the native populations, living the frontier life because he is too vile to exist in any civilized community.

I suppose it is easy to get such ideas when living in an atmosphere detached from the actual inner existence of the miners, prospectors, and trappers, but to one who has spent two years living among these men in the close intimacy of camp life, who has been one of themselves, an ordinary northern 'roughneck' or 'sourdough,' as a man can term himself after spending a winter in the country, the term 'low-down' seems grossly unfair and is undeserved by the majority of the white men who make their homes in the Arctic Forest Land.

Of course there are some fairly low-down members of the scanty white population, mostly among the traders, who live on the Indians, supplying them with rotten, shoddy goods for an inordinate quantity of fur. I have formed the highest opinion of more than one of these, but they are of the type of the old-time traders, strong, red-bearded Highlanders who ruled with a rod of iron and did nearly all the exploring that has been done in the North-West.

Any one can cheat an Indian; there is nothing clever about that. Nor is there anything clever about charging a traveller double price for essentials which he cannot get elsewhere.

There are not so very many traders, luckily, and now that the mining camps are quieter than two decades ago, the voice of the pimp is not heard in the land. The tinhorn gambler is a rarish bird, nowadays, but he is far less contemptible than the bloated general merchant, sitting like a spider in his store, waiting for the unsuspecting Indian to walk in and believe his lies.

But, luckily, the mass of the white population are the miners, prospectors, and trappers. They are the men referred to so scathingly as 'low-down' whites; they are the targets for the contempt and disparagement of those who do not know them because they would not. In what country are there no dissolute and crooked customers, underhand and contemptible folk? The Yukon has her share of them, but she has a far smaller share, in my opinion, than the countries to the south.

The hard life they lead, the continual struggle against cold and privation, the titanic labours they accomplish to make their bare living, a living that most southlanders would die on: these things have made the Yukoners the finest, most generous, and most virile population to be found on the whole continent of America.

There are neither paupers nor destitutes in the Northland, except those overtaken by misfortune while out in the wilds. Around the mining camps, if any man has bad luck, it is understood that his neighbours will stand by him and pull him through. Every man's house is open to any stranger, every man's money and other property is given or lent with no talk nor grudge nor bargaining. The most drunken and foul-mouthed among them will sell his shirt to do a pal a good turn. The most ignorant and illiterate lives along the principles of the phrase, 'Do unto your neighbour as you would he should do unto you.'

A first impression, to a person of refined tastes and delicate feelings, is that they are an unnecessarily rough and unrestrained community. But the hard life of the North does not encourage doing anything by halves. A man must work his utmost, he must think his utmost, he must have his wits about him day and night in order to keep up to the common standard of living. Is it wonderful, therefore, that when they drink they should 'go the limit,' that they fight hard and swear hard, that their faces are often rugged and repelling, that they are abrupt and crude in their speech, uncultivated in their manners?

They are suspicious of strangers and particularly of 'chechaquos' (tenderfeet), but that is because their brotherhood is so close that they wish to be certain of a man before admitting him into it. It has been written that the life of the trapper and prospector is a contemptible existence of sloth, the life of a beachcomber. It is not. It is the hardest manual work in the world, and the man who leads that life must be strong, indomitable, and self-reliant to the uttermost. Not only do they work to the limit of their endurance, but they have to do all their camp work, all their cooking; mending and making their every possession, travelling in the slow, tedious fashion of the country. They are continually in difficulty, frequently in danger, often in doubt, generally alone, with no neighbours to go to for help, no friend to stand by in a tight place and say, 'Well done.' I have lived their life and I know.

No great depth of intellect is called for, beyond resource and knowledge of the country. Ambition seems to die beneath the spell of the northern lights which lure the sourdough to spend his remaining life under their gleam. But somebody has got to do their work. Some one must cut the trails and discover the mines, penetrate the forests, and learn the lakes and the mountains.

> Let not Ambition mock their useful toil,
> Their homely joys, and destiny obscure;
> Nor Grandeur hear with a disdainful smile
> The short and simple annals of the poor.

Let us rather honour those whose feet are first to cross lands which shall some day support thriving populations. Let us give all credit to the strong men, living and dying in obscurity from the world, who are opening up to us a new world, the Future Empire of the North.

THE FUTURE EMPIRE

THE majority of people have been led, by sensational fiction and an insufficient education, to believe that the Arctic regions are uniformly barren wastes, inhospitable and cold, where life is a continual round of hardship and where agriculture and stock-raising are impossible. Nothing is more detrimental to the progress of Canada than this apparently ineradicable fallacy that the farther to the north one goes the less favourable do conditions of life become. To a certain extent this is true, to-day, but the difficulties are not caused so much by the latitude as by the remoteness from civilization and the consequent labour of transport.

Looking back on the more recent history of the world, we see civilization continually marching northward. As each step was made in this northward progress by the pioneers who saw what they were doing and were, therefore, unafraid, the fools at home lifted their voices in yelping; the tune was always the same: ‘ It is too far north; it is uninhabitable; you are mad to go there; you will die, and it will be your own fault! ’

Has not the march of progress swept from the indolent Mediterranean to the *terrae barbarorum*, to Northern Europe? Has it not since crossed the Atlantic to still colder climes and there made more rapid strides of development than any in the world's history? And northward it still must go, and is still going, though hampered by this wretched popular delusion of the unfitness of northern countries for settlement.

A hundred years ago, the whole of Canada was regarded as one huge snowfield, incapable of producing anything but fish, fur, and lumber. Thirty years ago Winnipeg was thought to be the ‘ back of beyond ’ by the comfortable farmers of Southern Ontario. Twenty years ago Edmonton was ‘ ’way up north ’ to the Manitobans. Ten years ago Peace River was ‘ outside the map ’ to the townsmen of Edmonton, and to-day the Peace River farmers look on the Mackenzie River valley as the ‘ remote district of frightful cold ’ which has run through the whole story from beginning to end.

And yet when we get there, to the Arctic and sub-Arctic inland regions of Canada, what do we find ? A vast tract of ground covered by forest (potential building material and railway ties), most of its great area uninhabited, but not uninhabitable.

Let us take the objections in order : first, the cold winter. If the climate of the Northern Territories is prohibitive to progress, then even the states of Montana, Minnesota, Dakota, and Michigan would be desolate wildernesses instead of thriving agricultural and industrial states. The coldest record in the American Arctic is only 7° F. lower than that of Montana ! [1]

‘ Now,’ you say, ‘ the winter is longer and the summer so short that crops cannot be grown.’ The winter is about two months longer on the Arctic Circle than at Edmonton. But during the greater part of that short Arctic summer the sun shines both by day and by night. Wheat, barley, and oats are raised yearly at Forts Providence and Simpson on the

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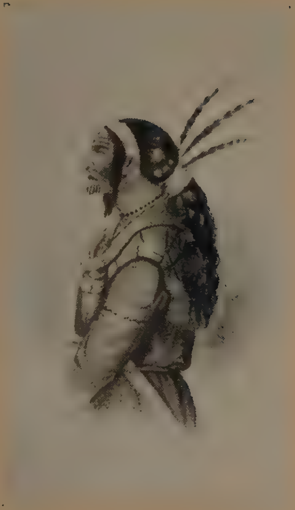
[1] −75° F. as compared to −68° F.



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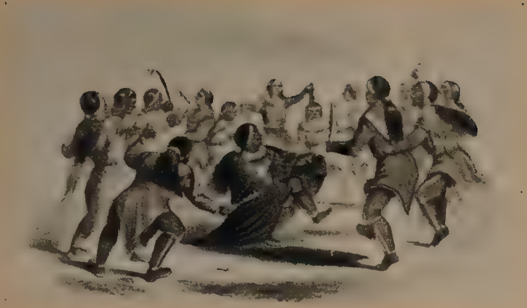
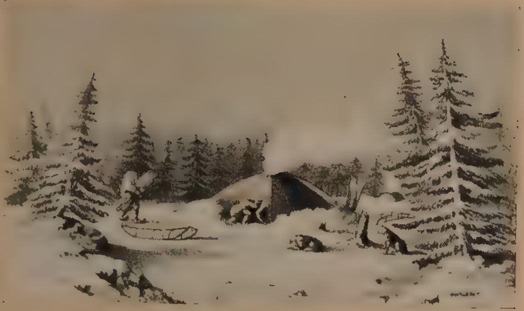
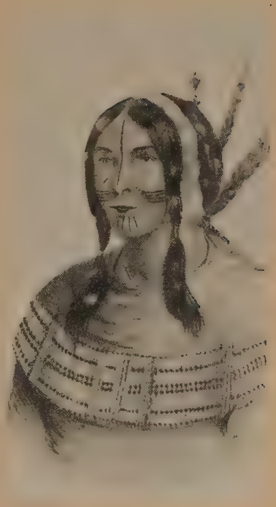


DANCE OF THE KUTCHA KUTCHIN



KUTCHIN WINTER LODGES

From the pictures by Hunter Murray at Fort Yukon



SAVIAH, CHIEF OF THE
KUTCHA KUTCHIN

Mackenzie River. The people experimenting there tell me that the continual daylight promotes an extraordinarily rapid growth. Potatoes are cultivated at Fort Good Hope, within eight miles of the Arctic Circle. Green vegetables are grown regularly at Circle City on the Yukon and at Fairbanks on the Tanana River, and have been produced at Fort Yukon, north of the Circle. Experiments are being made to breed some kind of cattle which will withstand the blizzards, for the ordinary breeds must be housed and fed in the winter. Probably the most successful animal will be the 'galloyak,' crossed from the galloway and the Thibetan yak, which can stand any amount of cold, is subject to no known diseases, and is docile. (The chief objections to the crosses from the buffalo are their ferocity and obstinacy.)

There are many places in the North where hay is very abundant, notably round Whitehorse, Yukon Territory, and in the country to south-west of Great Slave Lake. It is only fair to add that in the greater part of the territories farther north, grass is scarce and stock-raising could only be on a small scale. But on reaching the mosslands we find the home of another animal, the reindeer. The colossal increase of the herds in Alaska, sprung from a small initial stock, is sufficient proof that these animals can be successfully imported and herded in the open tundras and on the higher ground that bears the reindeer moss. The reindeer would probably be the principal animal to open up the farthest North, but eventually he would, I believe, be superseded by the horse, which would follow the cut trail dragging his oats behind him. The reindeer is only cut out for a nomadic existence, and will feed the workers in the mines that have yet to be opened up.

What of the mines? That no one knows. We can only guess at it from the little, little bit that any of us have explored of the two million square miles of virgin land, unscratched, unknown and mostly unseen, which make up the northern part of Canada. Geologists and prospectors have known for years that Canada possesses immense mineral wealth, now latent and undeveloped. It is only the everlasting question of transport that prevents the swifter development of these vast resources. The mineral development of a huge country can only follow its agricultural opening up, with the railroad, the regularly run steamship line, and the population.

How is this population to be introduced, and what is to be the quality thereof? It cannot be introduced; it must come in of its own accord, and is already doing so. The quality can be seen in the northern part of the prairie provinces: Russians, Poles, Finns, Swedes, Norwegians, Germans, Canadian-French and Scots, in order of numbers. Colonization cannot be too artificially carried out; it must spread automatically in proportion to the increase of population. That is because of the women: the men must have women, and the women must have company.

The great difficulty in the development of the prairie provinces is that the women, unless born under just such conditions, get to hate the isolated life of the homestead and make their men discontented. The gradual spread from village to village, each boy taking up a small piece of land as he grows to manhood, is the natural and most efficacious method of developing an agricultural country. That is the way in which the North-West Territories will be opened up, and always before the line of farmers will be the line of prospectors opening up to view the wonderful mineral deposits which will then come within reach of transportation.

Some day, long after we of the present time are dead, the Mackenzie River will run between the oil-towns from Norman to Thunder River; the pall of black smoke from the coal and iron mines of Bear River will hang over the valley in a dense cloud. Great Slave Lake, girt about with canneries, will separate the oil-fields on the west from the silver and gold mines on the east and north. The streets of Fort Resolution will be paved with asphalt from the Athabasca instead of with muck, as at present.

The railway from the gold-field up the Liard River will join the Mackenzie Line at Simpson Junction, bringing down the crowds of miners on their jaunt to the big city (now an Indian village). The water of the Liard will be thick with the big logs of the lumber-drive, instead of the wreckage of driftwood which it carries to-day; the scream of the saw-mills will be heard from Simpson to the Liard Canyon. The first-class passengers, sitting in the dining-cars of the trains running down to the stone-built city of Macpherson, will look idly from the windows over the broad Mackenzie, and perhaps they will wonder about the men who covered that same journey on foot over the rough ice in the days before the railway was thought of. I shall probably be accused of lunacy by nine-tenths of the people who read this, but let me put forward one suggestion: if the Arctic forests were the damnable Gehenna they are popularly imagined to be, would not we, who have lived there, be the first to denounce them? But we all sing the same song of praise (and no one ever believes us).

A last word about the men who are to do this work of development: as I have said, they are mostly 'bohunks.' Why is it mostly foreigners who are doing the real pioneer work? Is it because the foreigner has more foresight? I hardly think so. Is it because he is better suited to the climate? The toughest Arctic traveller I know is a Syrian, born near Damascus! It is because the Canadians have allowed this Eastern European element to snatch the pearls from under their noses while they scramble for something nearer 'home,' nor think of making new homes farther afield. Surely enterprise is not so dead that a nation can be unaware of the existence of over half its territory? It would seem so!

But when the time does come, what will be the quality of the northern man? Let us consider the conditions under which he will live. He will have ambition and health, otherwise he will not go northwards. He will have practical common sense, or he will not make good. He will have long winter evenings, time to read, to think, and to discuss things. He will have energy, the great energy inspired by the dry cold. That is a formidable combination: Health, Ambition, Common Sense, Energy, and Time to think! And these qualities will be handed on to their children, who will carry on the work naturally, because they are born to it. *Semper plus ultra* will be the motto of the country: there will always be more beyond.

The world of to-day is scrambling in the muck like rats in a sewage bed, while the newest country in all the globe holds out her arms to take in Manhood, offering success for exploitation. Is Manhood deaf or dead? Surely not, but how are they to know of these wonders in store for them? How gladly they would go if only they did know!

NATURAL HISTORY

MAMMALS

THE MOOSE[1] (*Alces americanus*)

THIS, the largest living member of the deer family, ranges over the whole forest country of Canada and Alaska. The biggest specimens are found in Alaska and the Yukon Territory of Canada, forming a distinct variety, so much greater is their average size. A big Alaskan bull-moose will stand well over seven feet at the shoulder, while his huge palmated antlers commonly have a span of six feet. Such a beast would weigh about fifteen hundred pounds in good condition.

The physiology of this animal can be found in any reference book of zoology, but a few words about the habits might be of interest to the lover of wild nature.

The rutting season starts in the second week of September. The bulls roam restlessly over the hills and valleys, lustful and pugnacious, not feeding at all till they have found a cow, after which they remain strictly monogamous. So bold are they during this season that, after being called by an imitation of the challenge of another bull, they sometimes stand still and allow three or four bullets to be fired into their great bodies before any idea of retreat occurs to them. They can stand far more shot at this season than at other times. The fighting of bull-moose is a wonderful spectacle which few people are lucky enough to observe. They do not appear to kill each other very frequently, but sometimes the horns of the combatants get interlocked and the two perish miserably of starvation and exhaustion.

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[1] From Algonquin mūswa = he strips off, meaning the plucking of twigs.

On finding a cow the bull resumes his feeding, but so satiates himself with eroticism that he becomes a stringy, stinking skeleton, and by the second week in October is practically uneatable. The cow does not lose her condition.

The yearlings at this time endeavour to avoid their elder male relatives, the young bulls because they know that the older ones will chase and probably damage them, the young cows because their inexperience makes them apprehensive.

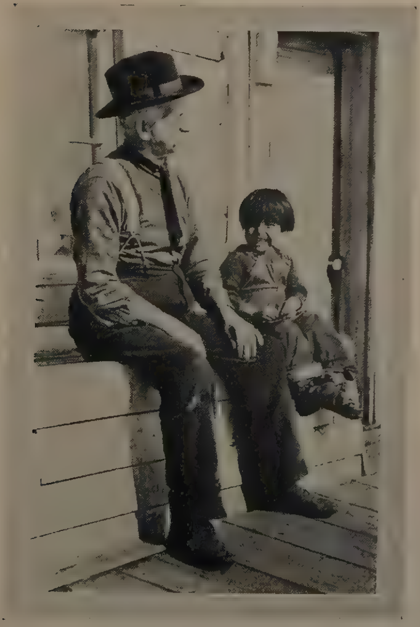
After the hectic month of the mating season, both bulls and cows retire to the hills till the ice on the rivers is sound enough to bear their great bodies or till the snow gets deep and they find it easier to move on lower levels. In the southern latitudes moose form 'yards,' spaces in which they trample down the snow and where they spend all the winter. In the cold Northland they need not do this, as the snow is powdery and not heavy like that of the provinces.

Moose are said to yard in the mountains between the Peel and Arctic Red Rivers, but I believe the snowfall to be quite as heavy in the Davidson Mountains, and have seen that they do not do so in that district.

The moose wander about the country, the bulls generally alone, frequently travelling considerable distances and sometimes feeding for weeks round the same little creek valley. They eat the twigs of birch, willow, and poplar, their short, horizontally carried

DAVID McRAE

ARCHIE LINKLATER



JIM HALY AND TSUL

HARRY ANTHONY

necks and long legs suiting them more for browsing than for grazing.

Grass is occasionally eaten, but only from the tops of high nigger-heads. The short ground-willows are a favourite food, the moose brushing away the covering snow with their great Roman noses. Small trees are sometimes bent down by straddling with the forelegs.

The moose feed often in such close circles that the hunter, following on snowshoes, passes close to the sharp-eared quarry while still a considerable distance away along its track. This has given rise to a common opinion that the moose deliberately lie watching their tracks. I believe this to be unfounded, for in areas where the feeding is good they will circle in this fashion, but while passing through bad feeding grounds they will travel in a straight line and sleep on their tracks. When a cow and calf are travelling together, the calf walks directly in the mother's footsteps until they stop to feed.

In April, when the cow is heavy in calf, she comes down to the riversides and lakesides, choosing, if possible, an island on which to bring forth her offspring. The calf is born in April or May, sometimes as late as June. The little creatures seem to be quite devoid of fear and will even allow a man to approach within touching distance, but such liberties provoke the maternal instincts of the cow to active hostility, and the man is forced either to make a double slaughter or to beat a hasty retreat.

During summer the moose stay down on the lower ground, frequenting lakes and rivers, where they feed on the succulent water-lilies. They are very strong swimmers and take freely to the water, more, I believe, to escape the insect pests than for the love of aquatics. If hotly pursued by a dog, a wounded moose will always attempt to reach deep water.

The bulls drop their antlers in January, and through the summer, while the new horns are growing, hardening, and peeling, they recuperate their strength and acquire a stratum of fat sufficient to carry them over next rutting season or to supply some hunter with a quantity of excellent meat.

In August, when the velvet begins to itch on their horns, they tear down willows and smash young trees in their efforts to remove it. When the great antlers are finally clean and the moose is back in all his majesty to the glory of a clean head and well-conditioned body, the rutting season comes round again and this energy is dissipated by fighting, fasting, and the furtherance of the species.

In Alaska and the north country generally, the Indians call the moose with the voice, but without the use of the birch-bark megaphone of the east. It is not hard to learn to imitate these noises, the long-drawn, seductive tenor of the cow and the short, guttural grunt of the bull. The calling is immensely aided by the use of the dried shoulder-blade of a moose, which is rubbed against dry branches and makes a noise like the bull brushing his antlers as he passes through the forest or tears his head through the dry young trees and willows in his rage. It is better to call by imitating the bull than the cow, for a bull already possessing a mate promptly answers the challenge of a rival, but will ignore the lures of another ‘ missis.’

Though such a huge beast, a moose will not stand as much shot as the smaller but tougher mountain caribou. I have known cases of Indians, only armed with little ·22 calibre rifles, killing moose with these puny weapons by shooting into the heart from close range and then lying still and unobserved while the poor beast fights out his death-struggle. One reads an awful lot of nonsense in so-called sporting American journals where self-styled authorities advocate the same heavy rifle for moose and grizzly bear, while casually consigning to the caribou the vitality of the small deer.

In winter the moose may be hunted on big snowshoes, by chasing and not by calling. Any one can hunt moose in the fall with a little tuition, but it takes a hunter and a snowshoer to kill one in wintertime. In the tense stillness of the cold weather, when the slightest sound carries a long distance through the dry air, the sharp-eared moose is almost impossible to approach. The best time is a windy day accompanied by the comparative warmth of zero weather. The noise of the wind in the trees drowns the creaking of the snowshoes, and the moose is more likely to fall victim. These animals rely chiefly on the acuteness of their great trumpet ears. Their noses are highly sensitive also, but they are very short-sighted.

In April, when the top layer of snow thaws slightly at midday and then refreezes, forming a thin crust, the free movement of the heavy and small-footed moose is impeded, as he sinks right down at every step, whereas dogs, set on his trail, can run freely on the top of the crust. They very soon bring the poor beast to bay, howling round him in a circle till the man runs up on his small snowshoes to do the killing, but woe betide the dog who should approach within reach of the formidable spiked antlers or the sharp-pointed hoofs. The cows are killed by the Indians at this season, though not in such numbers as to threaten reduction; the fœtus is prized as food, and its skin used for bags, etc. Personally, I think that as a foodstuff it is practically valueless. Calf meat is not as sustaining as that of an adult beast, and no lean beast is as good as the lean parts of a fat one.

I can think of few more luxurious moments than those passed sitting before a good open camp fire, a chunk of fat moose meat before you, and the appetite that comes with the energy expended in hunting, cutting up, and packing the quarry to camp.

The moose on the Mackenzie River are very much smaller than the Yukon variety (so, I believe, are those in British Columbia), and are comparatively scarce, due possibly to a fire which burnt the country out over one hundred and fifty years ago, and which destroyed untold quantities of game. The story of that fire is told by the Dog-rib and Slave Indians, and is supported by the commonness of poplar-trees, the vegetation which almost invariably follows a forest fire.

But this is probably the only timbered district of Canada or Alaska where moose can be said to be scarce. Much is written about the danger of extermination of wild life at the hands of hunters, but in the great northern forests the moose are, if anything, increasing. Probably this is due to the poisoning of their still worse enemies, the wolves.

The wise game laws which prevent the hunter from wreaking his blood-lust on too great a number of victims carry no weight in the northern districts. There, game animals are killed at all seasons, regardless of sex or age, but only for food or clothing; and as none of the meat is wasted (except by accident),

TRAPPERS: GERMAN, AMERICAN, AND ENGLISH
TRAPPERS' CABIN NORTH OF BELL RIVER

the killing is only fair and is man's obvious right. The men of the North, both Indians and whites, living as they do right among the wild creatures, have no desire to slay a magnificent beast merely for the gruesome enjoyment of killing it and ghoulishly gloating over its inanimate antlers.

They see the wild creatures in their daily life. They have to hunt, whether they like it or not, to supply themselves with food, and have no wish to slaughter more than they need. Indians will sometimes get excited when among a big herd of caribou, and will kill far more than they want immediately, but they cut up all the meat to dry and none is wasted. The prairie buffalo has gone, the antelope is nearly gone, the wood buffalo is hanging on under police protection, but the big game of the Northland, the moose, caribou, and white mountain sheep, are holding their own and will continue to hold their own, until present traditions are forgotten. 'Tinjuik' the Majestic, the noblest beast that walks the forests, does not lend himself readily to slaughter. He is not easy to hunt, and moves away from approaching man-works; he does not run in herds, and he can escape a horse on his own ground, the dense forests and nigger-head swamps of the Northland. Let us hope that he will never become one of the sad examples of man's wantonness nor walk the plank of ruthless extermination.

The Wood Bison or Buffalo (*Bos bison athabascae*)

These buffalo, as they are called in their own country, must be a source of the greatest satisfaction to every lover of wild life. The ghastly slaughter of their brothers of the plains was a crime of humanity which cries to Heaven for redress now that redress is too late. The wood variety of the North-West have been greatly reduced and their wide range concentrated, but under Government protection their numbers are now increasing.

The haunts of the huge wood buffalo are the dense forests on either side of Slave River, North-West Territory.

They feed on the ‘ peavine ’ or ‘ fireweed,’ ploughing through the snow in winter and brushing it aside with their noses to get at their food. This makes them easy to hunt, for a man can run along the hardened track without snowshoes and soon overtake the cumbersome herd; but not many buffalo are killed at the present day. Rangers, employed specially to follow the buffalo and see to their protection, are effectively preventing even the Indians from killing more than a very limited number.

There are moose and caribou in the country, and a man usually prefers to hunt these than be sent to gaol for six months. I am not qualified to estimate the number of buffalo now ranging the North-West, having only passed through the district where they are to be found, but a buffalo ranger at Fitzgerald told me last summer that he would put it at about two thousand head.

THE MUSK-OX (*Ovibos moschatus*)

These Arctic cattle, as they would be more suitably termed, range the northern tundras beyond the limit of trees except on the Arctic slopes of Alaska and the Yukon Territory, where they have been exterminated by the whaling fleets.

Their chief stronghold on the mainland of Canada is that little known and practically unexplored district of the Back or Great Fish River. A Canadian law is now in force to protect these animals, which, although it cannot prevent the natives from hunting them for meat, punishes any person found in possession of a head or hide. A movement is now on foot to domesticate musk-oxen for the purpose of combing the valuable wool of their luxuriant coats.

The musk-ox is an easy beast to kill, offering no sport beyond the pleasures and excitements of penetrating into his country. His only natural enemy is the wolf, and he treats a hunter in the same way, facing the rifle with lowered head.

I never reached the musk-ox land, and all this was told to me by other hunters. For good reading on the musk-ox see Warburton Pike (*The Barren Grounds of Northern Canada*) and Hanbury (*Sport and Travel in the Northland of Canada*).

The Wapiti (*Cervus canadensis*)

The wapiti (misnamed elk by Americans) are now moving northward to avoid the extermination with which they are threatened in the south. No longer able to migrate in winter to the valleys, owing to the intrusion of the genus farmer, the wapiti, essentially grazers, are either frozen and starved in the deep snow of the mountains, or else stampede down to the fenced land below, poor, bewildered, starving beasts, to be butchered by the mercenary for the sake of their ivory tusks, worth at most a couple of dollars. A man who will kill a magnificent and beautiful creature like the bull wapiti for this petty reason ought to be publicly hanged or made to endure some humiliating and painful form of corporal punishment.

The range of the wapiti is gradually extending northward and there are now many of these splendid deer in the Smoky River district, according to hunters from that region. There are still some in Manitoba and many on Vancouver Island, where they are protected. As a general rule their range follows the Rocky Mountains.

THE CARIBOU (*Rangifer osborni*)

The French-Canadian name for the American reindeer is said to come from 'carré bœuf' (square ox), or more likely from 'Kalibu' (the scratcher), Algonquin, referring to the animal's habit of pawing the snow away to reach the moss below.

The woodland caribou [1] range over all the timbered country of Southern Canada and Newfoundland, though nowhere very numerous.

The mountain caribou are very abundant in all the mountainous districts of the Yukon Territory and Alaska. They migrate in spring and fall to change their feeding grounds, though their 'runs' are sometimes irregular and uncertain. I have been camped in the midst of these migrating herds, and thousands upon thousands come trooping past, day and night, all in a hurry, keeping up their swinging, elastic trot till they get to their new feeding grounds.

For details about the vast herds of Barren Ground caribou,[2] the smallest variety, see Seton (*The Arctic Prairies*) and Warburton Pike (*The Barren Grounds of Northern Canada*).

Caribou start their rut in October,[3] the bulls not

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[1] *Rangifer caribou.*

[2] *Rangifer arcticus.*

[3] I am informed that the woodland variety start in September.

WHERE THE CARIBOU-RUN CROSSES THE YUKON

MOOSE COUNTRY, YUKON VALLEY

seeming to lose as much condition at this season as the moose. In the winter they roam in bands through the sparse timber of the mountains, sometimes far above the timber line, pawing the snow from off the moss which is their exclusive diet. They get very fat during winter, but lose it in the spring when they are plagued almost beyond endurance by the warble-fly. This insect lays eggs in the coat of the caribou and the maggot bores its way under the skin, where it remains till it drops to the ground in pupa form. The backs and necks of the caribou are literally riddled by these pests, the perforations not healing up till August.

During summer they recover their good condition, and by September the bulls, particularly, are as fat as prize cattle. The young, one to three in number, are dropped in May or June. They grow tiny horns in the first summer.

The caribou has many physiological peculiarities unknown to other members of the deer family. That both sexes should have horns is perhaps the most curious. The small ears, the high setting and great size of the antlers, the heavy-set legs and large, rounded slots combine to make the caribou, when seen in captivity or in a glass case, appear clumsy and ungainly. But those who have seen the wild beasts roaming over the northern mountain slopes, ever-restless, ever-wandering, must be filled with admiration for their marvellous endurance and hardihood, their supple springiness, and the nobility of their appearance.

The Mule Deer (*Dorcephalus hermionus*)

The mule deer, black-tailed or jumping deer, are common along the Athabasca River as far north as

Point Brûlé, but do not range as far as the Yukon or North-West Territories.

The Mountain Sheep[1] (*Ovis dalli*)

The bighorn, the great grey sheep of the southern Rockies, and the pure white species of Alaska and the Yukon, have crossed to form another distinct variety, the stone sheep of the upper Yukon Valley.

Of all the trophies that a hunter may bring back from the wilds of America none can be more satisfactory than the wonderful curling horns of the white mountain sheep, the most beautiful and active game animal of the Northland.

In the summer they live away up above the timber line, high among the windswept peaks and ridges of the rugged mountains that are their home, eating the sparse lichens of the rocks and what coarse grass they can find among the topmost stretches of moss. In winter they frequently descend to the timber and occasionally cross broad stretches of low ground to reach another mountain range. As a rule, however, they stay on their own part of the mountains, sometimes being exterminated from isolated peaks without attempting emigration.

The white sheep are not woolly, but are covered with short, thick hair. Their legs are very long, the necks erect and shapely below the crowning glory of the great sweep of horn.

High up on the windy ridges their amber eyes scan the country below, and a hunter must climb round and approach the sheep cautiously from above to avoid warning the ever-alert senses of these most wary of all wild creatures.

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[1] For exhaustive and valuable information concerning sheep, see Sheldon, *The Wilderness of the Upper Yukon.*

Mackenzie, the first white man to hear of the white sheep, was told by the Indians about the ‘ small white buffaloes ’ inhabiting the Wolverine Mountains.

The chief enemies of sheep are wolves, wolverines, lynxes, and (to the lambs) eagles. The wolves hunt them from above, endeavouring to head them down to the lower ground where their capture is easy. The lynx and wolverine lie hidden on some rock above a sheep-track and leap on to their backs. I do not think that lynx often make a practice of this, because they are quite the most cowardly and unenterprising of all Canada’s carnivora.

The range of sheep includes all high mountain systems and a few ranges of lower hills such as the Wolverine Mountains of the Mackenzie Valley, where they live in great abundance.

A curious colour freak was brought to my notice by some Indians of the Chandalar River, Alaska. When badly in need of meat while travelling through the Romanzof Mountains, they saw two sheep crossing a valley. They slew these and discovered, to their amazement, that both had dark-red saddle-marks almost covering their backs. One was a ram, the other a ewe. I saw these Indians very shortly afterwards and their coincident stories left no doubt as to the truth.

Happily, the mountain sheep are in no danger of extinction at the hand of man.

THE ROCKY MOUNTAIN GOAT (*Oreamnus montanus*)

It is generally supposed that the range of the mountain goat does not stretch beyond British Columbia’s northern boundary. It is interesting therefore to note the existence of a small colony of these curious animals in the Ketchumstuk Mountains of Alaska around the headwaters of the Charley River, while an Indian, whom I have no reason to disbelieve, volunteered me a description of a 'funny sheep' he had seen in the mountains to the south-east of Rampart House, even farther north. This creature was obviously a goat, an animal which the Indian had never seen elsewhere.

Goats are particularly common in South-Eastern Alaska, and hunters from around the Tête Jaune tell me that the goats in that district run up to four hundred pounds.

The Alaska Brown Bear (*Ursus middendorffii*)

Also called the Alaska grizzly and the Kadiak bear, this most formidable monster is found in all the Alaska-Yukon peninsula. Nowhere very abundant, it is probably commonest on the Porcupine River, especially the upper part, where the Indians say that the black bears have been killed or driven out by their monstrous cousins.

Many people write lightly of the hostile nature of these bears, but the men who see them year after year believe these Alaskan bears to be thoroughly dangerous and can quote many instances of men being badly wounded or killed by them.

In late April or early May these great brutes emerge from their winter quarters, in good condition but ravenously hungry and thoroughly bad tempered, to roam the world for another summer. The she-bear produces her cub or cubs just before leaving the winter den. These little beasts, everlastingly inquisitive, restless, and disobedient, roam out of their

NEAR CHARLEY RIVER

CARIBOU COUNTRY

mother's sight, and if an unfortunate man should happen to pass through the forest anywhere near these cubs or where the old one imagines them to be, she will probably launch her formidable bulk at the intruder with intent to do bodily harm. As she weighs over half a ton and is armed with huge, blunt claws and most frightful teeth, the damage done to the innocuous intruder may be considerable.

An incarcerated specimen waddling about the Mappin terraces in Regent's Park gives no notion of the amazing speed with which the wild creature can cover the ground. They can take thirty-five feet to a bound, as measured on a sandbar, and I estimate that they can cover a hundred yards in about six seconds. This does not give the luckless man much time for choosing the best tree to climb.

These bears are very strong swimmers and not easy to catch in the water with a row-boat. When they land one notices that the wet body looks quite lean and lithe, so their activity is easier to understand. An Alaska brown will generally charge if wounded, but the females are the most dangerous, as they are liable to attack any one throughout the summer. The Alaskan bear lives on much the same diet as the other land varieties: roots, berries, insects, fish, ground-squirrels, and carrion. They use their great strength to tear up rotten stumps and detach boulders to get at ants, which they catch by moistening their paws with saliva and licking off the insects stuck thereon.

During the salmon run they hook the fish from the streams with their great claws. Up the Salmon (Sheinjuik) and Salmon-Trout Rivers, tributaries of the Porcupine, the fish run in countless thousands to spawn in the hot water that rises at the heads of these streams. Many die and are stranded by the falling water; others are snatched from the stream by timber wolves, while some are scooped out by these great bears. When winter comes there are thousands of stranded fish, in various stages of putrefaction, lying on the banks. Some of the old male bears, instead of hibernating in a den under the snow from October till May, remain at large during the whole winter, living on these fish. The result can be imagined: instead of five months' diet of roots and berries they get twelve months of juicy salmon, and they grow simply colossal! Their tracks look like those of a man on snowshoes, their fur grows extra heavy, they will stand twelve feet high and probably weigh close on a ton, for they are very fat.

The temper of these winter bears is extremely crusty, and the Indians clear out when they hear the tinkling of the icicles on their shaggy fur and the crunching of their huge feet in the snow. All these bears are extremely destructive to property, and are so strong that a cache is not easily built to withstand their assault.

The Grizzly Bear (*Ursus horribilis*)

This animal, whose range runs along the whole length of the Rocky Mountains, is smaller and less formidable than the Alaska brown. He will attack when wounded, but not usually without provocation. In a logging camp at the head of the Klondike River these grizzlies used to come to the cabin in search of refuse. As the loggers never attacked them, they became quite tame, and the men finally got to take little notice of a big bear standing within a yard of the door, but would walk out past his nose and even give him a friendly kick. But if they find a tent or cache, left by some trapper in the hills, they will generally tear it down and destroy everything in it. For this reason, and because they are generally dangerous to man and his property, the grizzly bear is killed as often as possible by both Indians and whites. Splendid great monsters though they are, any person who has lost a winter's supply of food to one of these bears will undoubtedly regard them as vermin and enemies of the human race.

The Black Bear (*Ursus americanus*)

This small and inoffensive species, though overshadowed by the more conspicuous bears aforementioned, is by far the most common on the North American continent.

A black bear will seldom weigh more than four hundred pounds, even when in fat condition. He can climb a tree when full grown, not having such long claws as the grizzly. The 'cinnamon' bear is just a colour variety of the same animal, mostly found in the southern regions of Canada. An old hunter from Manitoba assured me that cinnamon and black are sometimes produced at one birth.

The black bears eat much the same fare as the others, but are also fond of the juicy green goose-grass which grows on the muddy banks of the water.

Though they will charge under sufficient provocation, the black bear has not the same innate hostility as his larger cousins. On the Porcupine River, one September, I was in want of grease and saw a black bear cub waddling along a sandbar. It would have shamed me to kill it, but I knew it was old enough to look after itself and thought I would get its mother.

I landed with my rifle, chased it to the top of a small spruce-tree among some thick willows, and prodded it with a stick to make it yell, which it promptly did in no uncertain tone of voice. I could hear the old bear crashing among the willows, but the growth was so thick that I was unable to see her. She refused to attack, evidently sharing my opinion that the cub was now old enough to make his own way through life, so I abandoned him, still squalling and grunting, and continued my journey.

Bear fat when rendered down makes an admirable substitute for butter, but is too rich for most stomachs to hold, so it should be mixed with moose-tallow to dilute its strength. The hides are very heavy and of little value compared to the finer furs, but as babiche they are probably better (for thick strands) than any other leather.

Bears are not often hunted systematically except by the tedious process of depositing a carrion bait. Unless wanted for a trophy, he is not worth the long nights of waiting which this may entail. Most of the bears killed are just shot when met by chance ; they are pretty certain to be found on any well-berried hill-side during the summer. The meat of a bear feeding on berries is good, especially that of a young one, but an old carrion-eater tastes very rank and is excessively tough.

In winter-time they are killed by throwing burning brands into their dens and hitting them with a felling-axe as they emerge. They can be shot, too, but it is not very sporting to shoot a sleepy bear at point-blank range.

Dogs can be trained to tree them and bark till the hunter comes with the rifle. Black bears are very

LITTLE CREEK IN SUMMER
CARIBOU CREEK

common on Peace River, more so, perhaps, than anywhere on the continent.

The Wolf (*Canis lupus occidentalis*)

The timber wolf (so called to distinguish him from the coyote or prairie wolf) ranges throughout Northern Canada and Alaska. Though of the same species as the Mexican ‘ lobo ’ the northern variety are of much greater size and strength. They are said to hunt, occasionally, in very large packs, but I believe this is only when following a caribou migration. They usually run in families, numbering four to eight, more than twenty being uncommon in one hunting party. They are grey and often ‘ black ’ (dark blue), which is very beautiful. In the Barren Lands they are white, but these are simply a sub-variety.

Wolves are common in all parts of the North except in the neighbourhood of the lower Mackenzie River where big game is scarce. All over the mountainous districts they follow the caribou herds, pulling down the stragglers, killing far more than they need for food.

The timber wolf is undoubtedly a most formidable animal. A big male will weigh two hundred pounds, his length, from his nose to the tip of his tail, may be a good eight feet.[1] His power of scent, his wonderful untiring suppleness, the huge, murderous fangs in his long, lean jaws, and, above all, his amazing cunning, make the timber wolf one of the most devilish, though most beautiful, machines of destruction in the animal world.

Yet, although he is so infinitely more terrible in strength and appearance than popular imagination is wont to paint him, I am absolutely convinced that under no conditions, save those of absolute famine and self-defence, will wolves attack a human being or come into contact with him if it can be avoided.[1] The European wolf may be different—I do not know—but, although in America one hears many stories of men murdered by wolves, I prefer to rely on the general belief of all who know these animals best.

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[1] Seton records a wolf, on the Athabasca, measuring 8 ft. 4 ins.

Of course, circumstantial evidence may be black against them. A family of wolves may be following a hunter when accident, perhaps by frost or a fall, overtakes him. The wolves will eat his body, and the search-party, seeing the tracks, will conclude that he was hunted down and slain. While hunting alone I have been followed by wolves, day after day. I believe it was partly curiosity and partly the hope of sharing the kill. The wolves that followed me kept out of sight whenever possible, and if I returned on my tracks, retreated into cover. I was sleeping in open camps night after night and allowed the fire to die down while I slept, but the wolves never approached nearer than fifty yards. Probably they were after whatever food scraps I would leave behind.

I knew a trapper, named Smith, who entered an unoccupied cabin on the Porcupine River, Alaska, on a day so windy that his footfall was inaudible. On pushing open the door he found six big wolves in the little room. With one accord they dashed for the small window by which they had entered, and so jammed against each other in the narrow opening that Smith had time to shoot three of them.

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[1] A rabid wolf would probably attack man, unprovoked, but I never heard of any individual case of this.

Those wolves were thoroughly cornered, and yet not one of them made an attack on the man. If they had done so, they would easily have killed him.[1]

It is a different matter with dogs. Wolves will go to a great deal of trouble to kill them, following the sleds in the hope of the man leaving the dogs unprotected. A she-wolf will howl them from the camps at night into the darkness, in which firearms are as useless as curses, where they are killed and eaten. Against their terrible wild cousins the poor dogs have no chance; they are slaughtered like mutton for their foolishness. I have only known one team of dogs which returned from such an affray. They belonged to a Siberian trapper named Brun, themselves partly of wolf blood, and the finest dogs I ever saw in my life. I met him the day after the affair, on the upper Porcupine; one had been so badly torn about the throat that he had to kill it. Most dogs, however, are afraid of wolves and crowd round the camp fire when they howl at night.

How a pack of starving wolves may act I do not know, for most of those in the North are in excellent fat condition. They live on the tail of the caribou herds and also kill moose, mountain sheep, foxes, any animal, in short, that they can catch (except a porcupine). They pull salmon from the rivers during the summer 'run' and eat grass and berries (I am told) with evident relish. Wolves will not kill a big moose single-handed, but four or more of them will snap at his flanks and back-tendons till the poor brute is flying with his entrails trailing behind him and falls, probably hamstrung, to have his throat torn out by these devils, his magnificent body lacerated and semi-eaten, then left to the gleaners, a stinking mass of carrion.

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[1] Smith and his only neighbour within fifty miles shot and killed each other in the winter 1922-23.

The she-wolf secludes herself to produce the cubs, generally four to six, but the male returns to her shortly after, and the whole family remain together till the following spring. They often hunt by driving the quarry towards two or three of their number lying in ambush : a spring and a snap and the caribou lies dead ; they eat a piece from the ham and pass on. In winter, when the mountain sheep sometimes come down to the timber line and even below it, the wolves manœuvre above them, and as long as they can keep the chase along the level or downhill, they are fairly sure of their prey. In the high crags, however, the sheep can only be caught by lying in wait and jumping from a ledge of rock on to their backs.

Wolves are not too proud to eat carrion, even where game is plentiful. They will rob traps, but are hard to trap themselves. The best way is to poison them with strychnine, but this must be done with great care, else dogs may pick up the baits. Poisoning the wolves has a bad effect on the fur supply of the district, though it is undoubtedly beneficial to the big game.

Ravens, after eating a piece of poisoned meat, fly away and die out of sight, to be eaten, in their turn, by foxes, weasels, and other fur-bearers, which are thus killed and their pelts wasted.

I think that there is little doubt, however, that the introduction of poison into the North has been largely responsible for the increase of moose in the country, in spite of the rifle coming in as its contemporary.

The wolves, though still very plentiful, are mostly found in the high mountains, among the numerous herds of caribou. In the lower ground, where the trappers run their lines, the first thing they do is to poison all the wolves they can, and the result is the increase of moose in the land.

The wonderful cunning of the timber wolf makes it hardly surprising that the French-Canadians believe in the terrible 'loup-garou' or werwolf, the beast with the mind of a man. The way in which wolves play havoc with the rancher's stock, in more southerly latitudes, shows an almost human intelligence and a devilish cunning. Seton, in those stories, 'Lobo' and 'Badlands Billy,' which thrilled me so in my school-days, gives two examples of what has happened time and time again, in Western Canada and the States: luckless ranchers being crippled, bankrupted, and driven out by some old wolf who slaughters their stock, defies traps and poison, avoids guns, and kills the futile dog-packs sent after him. Small wonder that the superstitious 'Canayens' believe in the loup-garou!

The theory that a domestic bitch, while in season, can be tied out in the woods and thus mated to a wolf is, I think, far-fetched and impracticable. For one thing, a wolf bitch would kill her immediately. Even if she escaped this and a dog-wolf came along, when the act for which she was placed there was performed and the wolf's desire satisfied, he would realize that she was that hated thing, a tame dog, and would kill and probably eat her; a most ungallant act to accuse him of, but chivalry is not the wolf's strong point.

The way to get a wolf-cross into the sled-dogs is to keep a female in captivity, so that she is accustomed to the dogs and will not harm them. The quarter-strain is the best; too much wolf makes too much trouble.

One hears many stories about the cunning and resource of wolves, and round the camp fires each man vies with the other in the tallness of his yarn. One of the best I ever heard was of a man who was treed by a pack of wolves. On his escaping up the tree the pack sat round below while one of their number went off to a beaver-dam, returning after a while carrying a live beaver which was set to work cutting down the tree! This story was told me by the Biggest Liar in North America (he will recognize himself by that description): the only tale I ever heard him tell that he did not swear (profusely and picturesquely) was the truth.

THE COYOTE (*Canis latrans*)

The coyote (pronounced ki-yu-té) or prairie wolf is a contemptible, sneaking creature compared to his larger cousin. So much is known and written of their habits that it is not worth dealing with them at length. One fact of interest worth recording, however, is that they seem to be drifting northward in increasing numbers. They are now common as far north as Stewart River, Yukon Territory, and have been caught at Fort Yukon, Alaska, beyond the Arctic Circle.

In the northern forests they have a grey tinge in their fur, more like the timber wolf, instead of the musty brown of the prairie variety, and ‘ brush-wolf ’ is used as a distinctive term, though their only difference is due to environment.

The Common Fox (*Vulpes alascensis abietorum*)

The commonest variety is the red fox, not very different to our British ' thief o' the world,' but bigger, better furred and with a much fuller brush. The black and silver foxes are of the same breed as the red, and they cross indiscriminately, making the ' cross fox ' which may be black with just a touch of red, or red with a slight suspicion of black, the value of the pelt varying accordingly.

Having no chicken runs to raid, the northern foxes live on rabbits, mice, the various kinds of grouse, fish, and squirrels, and go high into the hills after marmots and the little rock ptarmigan. They also eat carrion.

Foxes are easy to trap and are an important item in the Dominion fur supply. They are particularly common on the lower Mackenzie River, where a very large percentage are of the silver and cross variety. I believe that their abundance in this region may be partly due to the scarcity of heavy game, and, consequently, of wolves. There is no doubt that wolves will kill foxes and possibly tend to keep their numbers down. Foxes are seldom seen in winter, even where their tracks show them to be very abundant, but in summer-time a traveller may often see a fox, or a pair of them, mousing or rabbiting along the river banks.

I was once rowing down the Porcupine when I turned my head and saw, squatting on the beach not fifty yards from my boat and regarding me intently with a critical gaze, ' the biggest fox wot ever was seen ! ' I had no wish to harm him at a season when his pelt was useless, so I emitted a yell which even the immortal grocer could hardly have improved on.

Far from running away, he stood up and approached a few steps nearer, a derisive expression on his face. I shouted again, this time with the effect of bringing his mate from the undergrowth. The two foxes regarded me with withering contempt, and the last I saw of them was as they turned their attention from the idiotic creature in the boat to the more absorbing pursuit of hunting mice in the rough grass along the bank.

The foxes seem to fluctuate in fairly regular periods : the fur returns show a maximum catch about every ten years. Farming the silver foxes for their fur is now becoming an important industry in Canada and Alaska. The farmers hold that their furs are superior to the wild ones owing to the more regular feeding, but I have seen many wild pelts which compare favourably with any farmed specimen. The wild fox has the additional stimulus of exposure to the cold to promote the growth of a fine pelt, and the natural wild life must be, on the whole, healthier than that in a pen. Farmers tell me that they successfully inbreed foxes to the sixth generation. Their experiences all seem to point in one direction, namely, that immense care and trouble must be taken to make the enterprise a success.

The Arctic Fox (*Vulpes lagopus innuitus*)[1]

Though the common fox is not found beyond the timber, the little white foxes are by no means confined to the Barrens. They come far inland and have been caught in increasing numbers, in the last three years, round Fort Norman. I believe that this is due to the

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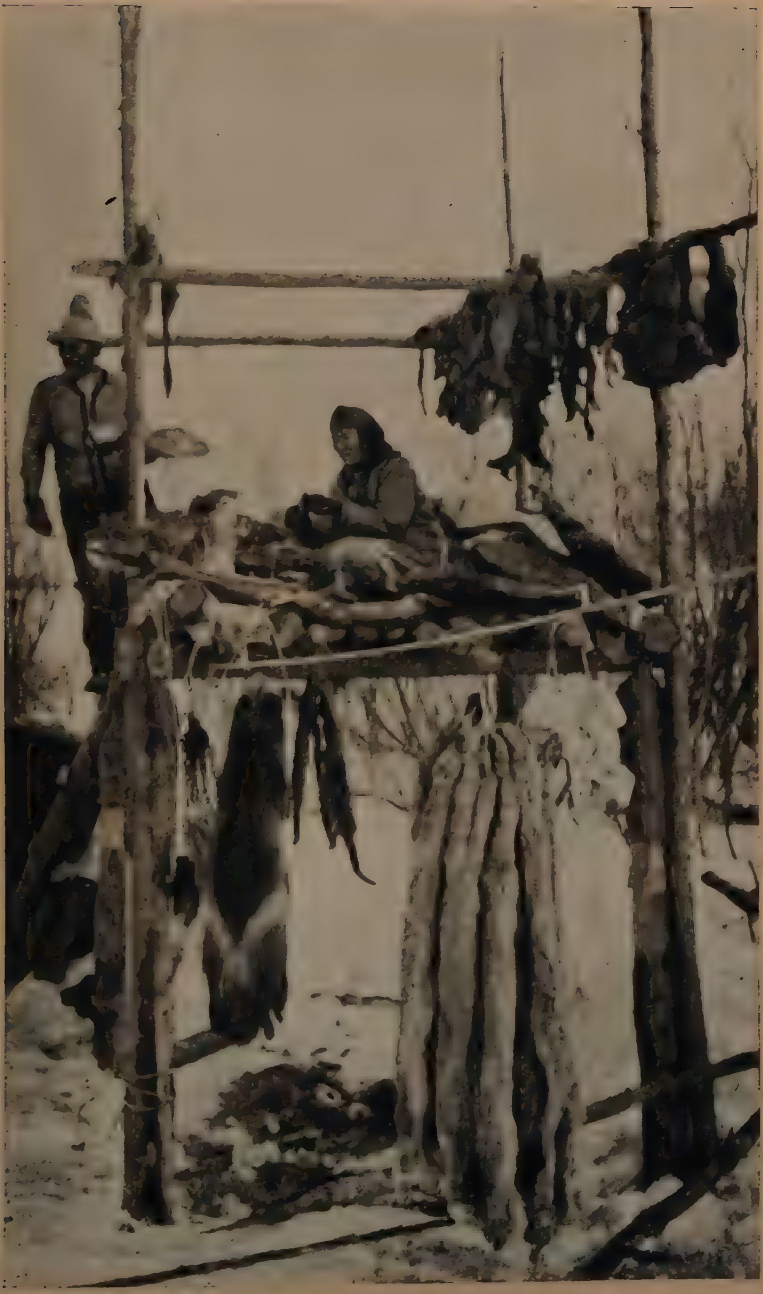
[1] Peary records the Arctic fox as having been found nearer to the Pole than any other land mammal. Their southern limit is Ontario.



A TRAPPER'S CACHE, SHOWING WOLVERINE AND LYNX FURS

cessation of whaling on the Arctic seas, and consequently a decrease in the number of stranded whales, upon which these foxes lived very largely in the whaling days. The Arctic fox is a very pretty creature, rather like a little dog, with black eyes, and a blunter muzzle and smaller ears than the red species.

They are very common in all the Arctic regions, and among the easiest to catch of all fur-bearers, but the fur is not as durable as the red or black. The blue variety of the Arctic fox exists in Western Alaska and the adjacent islands, notably in the Pribilof Islands, where they are farmed by the United States Government. The blue variety should not be confounded with the white fox in his summer coat, which is a dirty blue.

The grey monstrosities, commonly seen in furriers' windows, are almost invariably Arctic foxes dyed (to hide dirt), and are easily distinguished from the genuine grey, or kit-fox, of the southern prairies, a totally different species.

The Arctic fox lives largely on the same diet as his relation of the forests, but to a greater extent on lemmings, eggs, and stranded fish. On the tundras they make caches of food to carry them through the winter months.

THE CANADA LYNX (*Lynx canadensis mollipilosus*)

Though included among the larger cats and of fairly formidable appearance, the lynx does not deserve his story-book reputation for ferocity, for he has the heart of a chicken in spite of his big teeth and claws. No animal will lie down and make less struggle when trapped. For this reason, when approaching a trapped lynx which is still alive, it is best to shoot him in the head with a small bullet, for he may be caught by a toe only, and when the man approaches to kill him with a club, make a jerk and release himself. The idea of a lynx attacking a man is laughable, though a cornered animal, driven to desperation by fear, might prove extremely awkward to handle.

The lynx, though they kill ptarmigan, etc., and even young mountain sheep, live almost entirely on rabbits. The rabbits fluctuate regularly, increasing for seven years till they fairly swarm over the country, and then they die from what I believe to be a leporine syphilis, or 'rabbit-pox'; on the eighth year there is hardly a track to be seen, and the lynx find it necessary to change their feeding grounds. These rabbit fluctuations are regional, and the year of a shortage in, for example, the Athabasca Valley, may see a big rabbit year in the Yukon Territory.

Consequently the lynx move all over Canada and Alaska, following the rabbits in enormous hordes, though they are not really gregarious animals, never more than one family keeping company. The last big 'link harvest' in the far North was 1914-15. One trapper on the north bend of the Porcupine killed over three hundred lynx that winter, and few men killed under one hundred.

The next big rabbit year (1921-22) did not see the return of the lynx in any great numbers. Since the last 'flush' they had visited the provinces and probably remained, during that winter, in the Southern Rockies, where rabbits were also very abundant.

Lynx catch fish in the summer by hooking them from the shallows with their claws. They are strong swimmers, and, unlike most cats, have no distaste for water; they will hide under it, if in danger, with just the face above the surface.

The commonest way of capturing lynx is by wires, arranged like rabbit snares, in apertures left in specially built obstructions on a main rabbit-run. Lynx are killed by wolves, though generally they can escape up a tree. The largest bunch of lynx I ever heard of hunting together was seen by an Indian near Circle, Alaska, who was lucky enough to follow their tracks, find seven of them up one tree, and shoot them all. They were the two old ones and five full-grown kittens.

Lynx meat is good to eat, but I doubt if it is as nourishing as some people make out.

The bay lynx, or bobcat, of the east is an entirely separate species.

The Cougar (*Felis concolor*)

The cougar, puma, panther (painter), or mountain lion does not reach as far north as the Territories. They live almost entirely on deer and are not found beyond the northern range of the jumping deer. They are at their commonest on Vancouver Island, where they are hunted with dogs, trained to tree the cougar, and bark till the man comes up and shoots it. Though a formidable enough creature, weighing around two hundred pounds, the cougar does not usually attack man, though cases may be on record of their having done so.

The Wolverine (*Gulo luscus*)

The ‘carcajou’ of the French-Canadians, or the ‘glutton’ of Europeans, is the most remarkable of all the weasel tribe. His amazing strength, his boldness, and the extraordinary activity of his thick-set frame and short legs make this animal one of the most serious pests to the northern trapper.

Wolverines are widely distributed over both forested and treeless lands, but luckily are nowhere very common. It may be interesting to note that their bones are found, together with the remains of the mastodon and two-toed horse, in no wise different from those of the animal of the present day.

The wolverine is no respecter of persons; the works of man, far from inspiring awe, fill him with curiosity and the desire to rob and destroy. He will enter a tent, tear it down, eat or carry away any article of food that appeals to him, and promiscuously defile every other thing in the camp. He can dig like a badger, climb like a squirrel, and jump as high as a man can reach from the ground. In raiding a covered cache he will show astounding strength in prising his way between the floor-poles, and can carry away a fifty-pound ham of caribou in his teeth to eat elsewhere. This may sound almost incredible, but I have seen where it happened. I believe that he held the shank between his teeth and rested the weight of the buttock on his back. About the only things that he cannot do are to climb a slippery pole or erect a ladder!

One wolverine will work round a cache for so long, trying to effect an entrance, that the tracks lead a novice to believe that about fifty of them have been there. They are a very serious plague to the trapper, apart from their raids on his caches, because they follow round his trap lines to destroy and devour his catch. A man's feelings, on finding a beautiful silver fox utterly destroyed by the cursed 'carcajou,' may well be imagined.

He is not hard to trap, but difficult to hold, for he may tear himself out of the strongest gin, and, failing that, amputate his own leg and escape. From the time a wolverine is seized by the steel jaws he never stops working till he escapes or is killed. The best way to catch him is by a deadfall which kills him instantly.

Wolverines eat any flesh food, including eggs, fish, and carrion. They go high into the mountains after mountain sheep, which they kill by lying on ledges and jumping on to their backs. The Indians say that they kill moose by jumping from trees on to them. Though quite strong enough to kill a calf or even a wounded adult, I do not believe this to be a frequent practice. They certainly kill caribou calves in the Barren Lands.

The young of wolverine are a spotted creamy colour, very helpless, and without fear.

The fur of the adult is a coarse, shaggy brown and yellow, much valued locally, especially among the Esquimaux, for trimming garments.

The Marten (*Mustela americana*)

The marten or American sable is the same animal that ranges the Eurasian northlands. Furriers grade the dark specimens of both continents under the name Russian sable, the lighter pelts as marten.

They seem to be universally distributed throughout forest regions, though undoubtedly more common in some localities. Probably the Rabbitskin and Arctic Red Rivers are the districts in which most marten are caught. Unfortunately, the greater number of the Mackenzie Valley specimens are of the light brown colour and therefore less valuable. The finest pelts I have seen are those from the Porcupine River, some of them as black as coffee. I have, however, seen one, taken near Fort Norman, comparing favourably with any from Alaska and worth twice the money of the average brown pelt.

The marten is a very beautiful animal and extremely active. They make excellent pets, being very clean, and, when thoroughly domesticated, reliable in temper. Trappers living in solitude have tamed even adult specimens and induced them to enter their cabins for food. I knew a Frenchman who caught two young marten which slept in the bed with his children for two years and were never known to bite any one.

Marten live mostly on lemmings and other mice, though they also kill rabbits, squirrels, and birds. The best places to find them are those regions which have been burnt out by fire and where the undergrowth is coming up thickly. The mice congregate in such country and the marten increase with them. They are very easy to trap, the usual method being to lay the gin on a stump with a small piece of dry fish alongside. Marten seem to be among those animals which are not given to migration. With perseverance and skill a man may ‘ trap out ’ a marten country, and it is long before they increase to their former number.

Marten fur makes a very fine cap for cold weather, being very light. It fades, however, with much wear.

The Fisher (*Mustela pennanti*)

The fisher, or ‘ big marten ’ as the Crees call them, are a larger and darker cousin of the American sable. They do not range farther north than the Liard River. Trappers along the Athabasca tell me that they show great strength and ferocity both in killing their prey and in turning on the man when caught in a trap.

The Mink (*Lutreola vison energumenos*)

This beautiful creature, rather overshadowed by the more picturesque and valuable marten, haunts the banks of streams, living largely on fish, molluscs, etc., though also killing birds, rabbits, and mice. In winter it remains by the rivers and creeks, in pursuit of such water-life as lies below the snow, stranded by the falling of the water before the freeze-up.

Although living along the edge of the water, mink will travel long distances overland between one lake or creek and another. I have seen a track high in the mountains of the Yukon Territory, evidently of a mink changing his feeding ground.

They sleep in holes under banks and descend steep inclines by sliding, toboggan fashion, with their forelegs tucked back. I do not think that they slide continually down the same glissade, like otters do, for enjoyment, but I may be wrong. Anyway, I have never seen any signs of it.

The Canadian Otter (*Lutra canadensis*)

The habits of otter are too well known to need explanation here. They are well distributed all over the forest regions, but are nowhere common. The most interesting points are the evident distaste of the young otters for aquatics and their practice of toboggan-sliding, which evidently affords them the keenest joy.

The Canadian otters are larger, as a rule, than those in Great Britain.

The Ermine (*Putorius cicognanii*)

The commonest variety of the weasel is this larger black-tipped species, known to Britishers as the ‘stoat.’ The little weasel is less common.

They live chiefly on mice, but will eat any form of flesh food. They are very bold, often coming to cabins at night, even when dogs are chained round, and waking the occupants. They are easy to catch, and a well-matched set of ermine make a beautiful stole or collar.

Locally they are always known as ' weasel.'

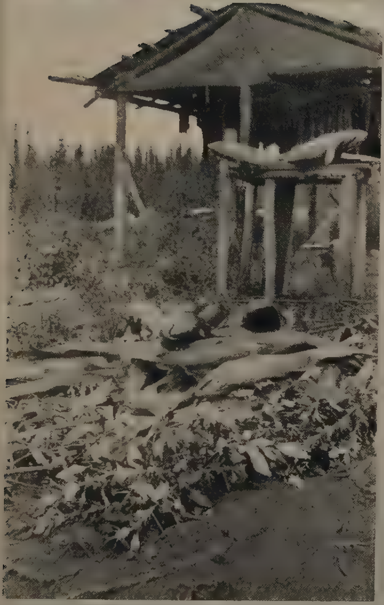
The Beaver (*Castor canadensis*)

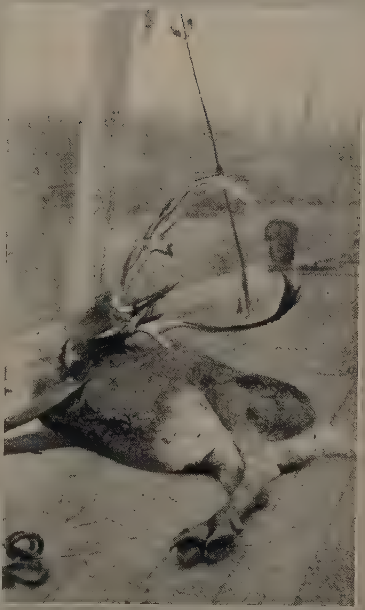
The beaver, or ' castor ' of French-Canadians, is certainly one of the most remarkable creatures on the continent. Their extraordinary life brings one to the eternal controversy between animal lovers as to whether beasts possess powers of reason or act solely on impulse and instinct. The beaver's life is mostly governed by inherited instinct, but I can never doubt that reasoning power is also present in the minds of these hard-working and wonderful creatures.

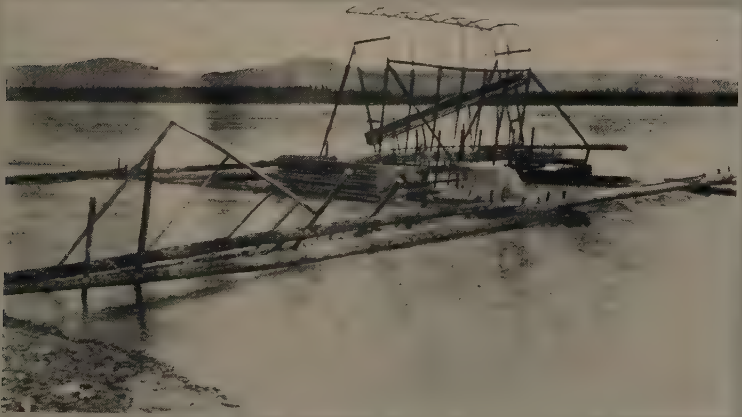
For instance, if a beaver does not work, the others will turn him out of the pond, and he freezes to death in the winter. They may not reason out that a sluggard has still a mouth to feed or that they would establish a bad precedent by allowing him to remain, but their argument must tend in that direction.

How the beavers build their dam is familiar to all : they fell trees and brush across the stream and seal it by flattening mud down with their tails.

The dam once built, they set to work cutting birch, willows, and poplar, dragging these into the pond and making them fast under water, for their food-supply during the winter. The lodges are made of branches and mud, and a platform inside is raised just above water level. When the frost comes, the beavers sit in comfort inside their warm houses, swimming under the ice to get the food they have stored.







KING SALMON.
(NOTE FISH DRYING UNDER CACHE)

BULL CARIBOU, YUKON RIVER

FISH WHEEL AT MOUTH OF CHARLEY RIVER

Approaching a beaver dam cautiously a man may hear the occupants talking to each other almost like human beings: a long burst of squeaks from one, possibly a discursion on the rival merits of poplar bark and willow tips, interspersed by 'Yes's,' 'No's,' and 'You don't say so's' from the others. Then another takes up the tale, maybe arguing the point or changing a well-worn subject.

I have the greatest respect for these most interesting and inoffensive creatures, and think it a shame to kill them, except when needed for food. Beaver meat is greasy but good; the tail, which is very fat, is the prize tit-bit.

They are difficult to trap under the ice, but only too easy to kill in the summer. A man has merely to lie in wait to shoot them, and can easily exterminate all the beavers of one dam in a short time. As long as high prices are paid for their heavy and (to my mind) unsatisfactory pelts, the beaver will always fall an easy prey to the trapper. A wise law, however, has granted them protection in many parts of Canada, which prevents their extermination and allows the Indians this reserve of meat and fur for their own use.

When beavers were protected in Alaska, many Indians, unable to sell the pelts, clothed themselves and all their children in these without decreasing the beaver population, as they would if hunting for sale. This was of great benefit to the Indians, and if a law can be brought in to protect the native beast, surely it might be kept in force to benefit the native man.

Beaver leather is very thick and strong, making good babiche, but the pelts are rather heavy for a coat. The natural fur is red, but the guard hairs are usually plucked or clipped, leaving the mouse-grey under-fur, which soon mats and becomes woolly. Beaver skins are stretched in circular fashion by lashing the edges to a hoop.

THE MUSK-RAT (*Fiber zibethicus spatulatus*)

The musk-rat or musquash is one of the most important fur-bearers in North America. They are so prolific that no amount of trapping seems to reduce their numbers, while the reddish-brown fur is in continual demand. In regions such as the Yukon Flats, the Mackenzie Delta, Old Crow River, and Athabasca Lake, where rats are particularly numerous, the trappers make more from their two months' rat-hunt in the spring than from their whole winter's catch. Musk-rat are seasonable throughout the summer, but the early spring pelts are the best.

Rats fall naturally into two classes: 'house-rats' which live in little lodges, like beaver lodges, in and around shallow lakes; and 'bank-rats' which live in holes under the banks of streams. House-rats are the easiest to catch in large numbers; the top of the house is broken, a trap set on the little mud platform, and the roof carefully closed again. When the ice is melting and the rats start moving about in the open air, they are shot with ·22 rifles, and when the ice is gone the trapper spends the days in his little canoe, shooting them in the water. A musk-rat can swim a hundred yards without rising to breathe. In the fall, when the ice is forming on the lakes, they keep holes open and squat round these, offering good targets against the snow.

A good trapper may kill as many as three thousand rats in one spring, and when the pelts fetch $2.50, as they have done in recent years, it considerably aids those people who, otherwise, might be hard put to it to live.

In the Yukon Flats and Mackenzie Delta, other fur has become too scarce to amount to much, and the natives rely entirely on the rats for their sustenance. Were it not for these little creatures they would be forced to emigrate into other regions.

The musk-rat lives on water weeds. He does not store food against the winter, like the beaver, for it grows naturally beneath the surface of the lake in which he lives.

Musk-rats get very fat and are extremely good to eat, though many people are put off by the name, which certainly does not hint at an article of diet.

THE CANADA PORCUPINE (*Erethizon dorsatum*)

Many a man has been saved from starvation by finding a porcupine, for it walks slower than a man, makes little attempt to escape, and is easily killed with a stick. In addition to which, its flesh is extremely nourishing, though perhaps rather strong for too particular a palate.

Though an utterly inoffensive creature, many a beast of prey remembers with dread the day, during his impetuous youth, when he attacked a porcupine! A flick of the tail and the soft muzzle was full of the little black and white quills that refuse to come out. Even a man cannot pull porcupine quills from a dog, for they break off, the points remaining in the flesh, making a swelling sore which lasts for days.

Porcupines do not throw their quills as many people suppose; they strike with the tail, and the quills remain in what is struck, though possibly quills may occasionally come loose and act as missiles.

These creatures are usually to be found clambering about the rocky sides of canyons, but are not confined to mountainous districts. They are good climbers, though slow, and they eat bark, leaves, and twigs. A porcupine is a prickly form of baggage, so a man must light a fire and burn the quills and long, coarse hairs from his body, scraping them off with a stick as they frizzle. This operation is invariably accompanied by an unpleasant smell.

Porcupine quills are used by the Indians for decorative purposes; the women stain them by boiling in berry juice, to weave into hatbands and sew on to coats or moccasins.

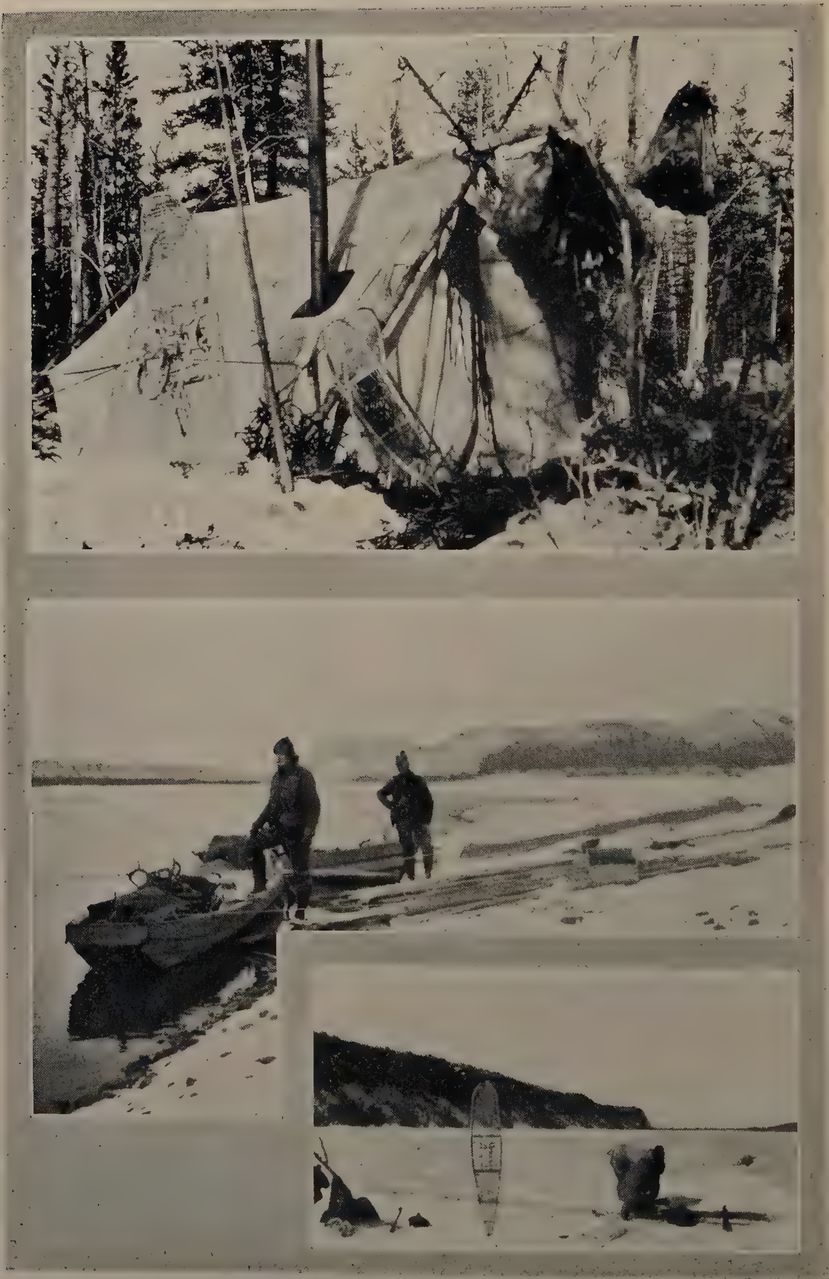
The porcupine leaves a footprint very like a miniature bear.

The Arctic Hare (*Lepus arcticus canus*)

Commonly called the 'snowshoe rabbit,' these creatures are an important factor in the northern life. The carnivora largely depend on them for food, while man finds they are an invaluable 'stand-by' in case of shortage. I have briefly described their fluctuations in the remarks on the Canada lynx, but the numbers which they reach in a 'rabbit' year are almost incredible. They beat the snow down with their big feet till hardly a square yard can be found unmarked, and it is difficult to find enough snow free from their droppings to melt for tea. At night they crowd into the Indian villages, flitting ghostlike between the tents and houses, eating whatever they can find.

They get so thick that when they have eaten all the bark and twigs within their reach, they will attack articles of wood or leather left about by man.

Then the disease comes upon them, a rabbit-pox



CAMP ON A MUSKRAT LAKE. (NOTE BUNDLE OF SKINS HANGING)
BRINGING MEAT DOWN THE YUKON IN SEPTEMBER
NETTING WHITE FISH UNDER ICE FIVE FEET THICK

which kills them in hundreds of thousands in the first cold snap. Their bodies are to be found under the snow below every tree, against which they huddled for warmth, lying across trails and along rivers, not an acre of ground free from dead rabbits. When this disease is upon them they are unfit to eat: the flesh is blotchy and pimpled below the skin. They are also inclined to eat each other.

When in health the snowshoe rabbit is a very pretty creature. His pure white fur is long and fluffy, his rather short ears are furred inside and out, his eyes are dark and his feet matted with the generous growth of fur which forms his ‘ snowshoes ’ and enables him to run on the surface of the soft snow.

The easiest way to catch rabbits is by wiring. The wires are set in the runs much as we snare rabbits in the fields in Scotland, but, as the runs are on the surface of the snow, the wires are attached to willows conveniently handy or to sticks stuck into the snow. Bait should be thrown down to bring them to the snares—green poplar, willow tops, or even young spruce.

The flesh is good to eat, but can become monotonous. It is best if parboiled and fried.

SMALL RODENTS

The northern forests have a plentiful population of small rodents, but I am not competent to write about these at any length.

The most conspicuous are the red squirrel, the woodchuck, the several kinds of ground-squirrel, the lemming, and other varieties of mice.

The red squirrel lies idle during the winter-time, living on the store of cones, etc., which it accumulates with enormous labour during the short summer. It emerges from retreat in April.

Marmots, or ground-squirrels, are common in the mountains, above timber line, but the big ‘ whistler ’ does not reach farther north than British Columbia.

Lemmings are very numerous throughout the Arctic, leading an active life beneath the snow all winter long, infesting cabins with extraordinary boldness. Their chief enemies are the marten, the weasel, and the snowy owl.

BIRDS

THE GOLDEN EAGLE (*Aquila chrysaëtos*)

NO description is needed of this magnificent bird, so familiar to all lovers of wild life. Its range extends throughout North America, where it has been called the Canadian eagle, but is identical with the golden eagle of Europe and Asia. In the North they prey upon marmot, squirrels, rabbits, and other rodents, also upon ptarmigan, spruce-grouse, ducks, geese, etc. They also take mountain lambs and possibly caribou calves, though they would not attack an adult sheep or caribou unless it was badly wounded. They are less common in the North than the white-headed sea eagle.

In the winter-time all the eagles seek some warmer climate.

THE WHITE-HEADED SEA EAGLE (*Haliaetus leucocephalus alascanus*)

Although the Americans have chosen this bird for their national emblem, they have done their best to exterminate him in their country, and then added insult to injury by dubbing him with the ghastly name of ‘ bald ’ eagle, as if he was a mangy vulture ! Surely the beautiful white plumage on the head and neck of this splendid bird does not invite such a taunt !

These eagles are common in Alaska and all Northern Canada, where they eat much the same fare as the golden eagles, but are not averse to eating stranded fish or stealing from the more diligent but smaller osprey.

They are naturally very shy of man, though I have approached to within twenty yards before disturbing one. At the mouth of a stream named Eagle River in the northern part of the Yukon there has been an eagles' eyrie year after year, ever since the oldest Indians can remember. No one harms eagles, as a rule, though I was once compelled to shoot and eat one for lack of better food. I may add that I seldom ate anything more unpleasant, and certainly had pangs of conscience about killing so noble a bird to make a very questionable meal.

THE GREENLAND FALCON (*Falcon candicans*)

The white gerfalcon, as it is otherwise called, is uncommon in Northern Canada and Alaska. It is white except for some black spotting on the upper parts. The beak and claws are yellow.

The only specimen I have seen of this very beautiful hawk was in the Rocky Mountains near Bell River, Yukon Territory.

THE GOSHAWK (*Astur atricapillus*)

The gos- or goose-hawk of America is slightly larger than the European variety and has not the characteristic bar on the breast. They live on the various grouse and ptarmigan as well as on rabbits, capturing their prey by direct pursuit, not by ' stooping ' after the manner of the falcons.

There are many other species of small hawks which come into the Northland in the summer-time. The inhabitants take no interest in them, and it is not easy

MIDNIGHT MEAL ON THE MACKENZIE, JUNE, 1921

CUT-BANK ON LOWER PEEL RIVER

LOOKING ACROSS THE TUNDRAS TO THE MOUNTAINS

GLACIER ON THE PEEL PORTAGE

to learn even their names, without a book of reference, for they are dubbed, *en bloc*, ‘ chicken-hawk ’ and further ignored.

The Osprey (*Pandion heliaetus carolinensis*)

This bird constitutes a separate genus and family of its own, having several similar physiological characteristics to owls, notably in the fourth toe, which is reversible.

Ospreys or fish-hawks are numerous in the Northland, returning year after year to nest in the same tall trees. They live exclusively on fish, diving through the air and seizing them from just below the surface, sometimes totally submerging themselves.

They are said to lay three or four eggs.

The Great Grey Owl (*Scotiaptex nebulosa nebulosa*)

These birds range to the limit of trees throughout the North, but appear to be commoner in Alaska than elsewhere. All the specimens I have seen were in that country. They nest in June and are said to lay from two to four eggs. Chiefly conspicuous for their thick plumage and large tail, they look bigger than they really are. They fly south in winter, returning in April.

The Short-Eared Owl (*Asio flammeus*)

This bird, the same almost all the world over, is quite common in the northern regions, particularly by the sides of lakes and sloughs in such districts as the Yukon Flats. It is not strictly nocturnal in its habits, and shows no bewilderment if disturbed in the daytime. It feeds exclusively on lemmings and other mice.

The Arctic Eagle Owl (*Bubo virginianus subarcticus*)

These huge and rapacious birds are very common in the forests of the Arctic and sub-Arctic regions. They are frequently seen in the evenings after dusk and in the early mornings before daylight, while their hooting can be heard almost any night while the sun is hidden, depending, of course, on latitude and season.

They are very bold and will attack and kill the smaller carnivora, though their usual diet consists of rodents and game birds. This variety of owl is very easily distinguished by the rich brown colour, the tufts or ' horns,' and its very large size.

The Hawk-Owl (*Surnia ulula caparoch*)

This bird is well named, for in habits it is strictly diurnal, preying almost exclusively on lemmings and ptarmigan, and is, consequently, more frequently seen than any of the northern owls, except the snowy owl. It nests on high trees, laying up to half a dozen eggs, It is fairly common in the more northern districts.

The Snowy Owl (*Nyctea nyctea*)

The natural home of this most beautiful and interesting of all the owl family is the open, wind-swept tundras of the Arctic. But they stray very far south in winter, and are frequently seen in the forest regions, particularly when rabbits are plentiful.

Last December (1922) I counted ten of these great birds in one day on the Yukon River just above Fort Yukon. Rabbits were very thick, and all along my trail were the remains of poor bunnies, torn to shreds, the marks where wide wing-tips had swept the snow on either side of the draggled little carcasses showing how each tragedy had come about.

The snowy owls are very bold and are said to kill even the Arctic fox on occasion. I would not vouch for this, but have taken the skull of a large weasel from a pellet dropped by one of these owls. They live on lemmings, rabbits, ptarmigan, etc., always eating their prey where it is killed, except when they carry it to the owlets. They catch fish occasionally and hunt both by day and by night. They nest in the open, generally on a rock, laying about six eggs.

The Northern Raven (*Corvus corax principalis*)

Ravens are among the few birds which remain in the Arctic forests throughout the winter. Locally they are often known as 'crow,' but this is a misnomer, the carrion crow being rarely seen north of Great Slave Lake, or anywhere in the Yukon Basin.

In the cold weather the harsh croak of the raven is changed to a sweet, musical note, whether by design or whether it sounds that way owing to the intense dryness and stillness of the atmosphere, I cannot say. Ravens suffer much from cold during the winter. They become very bold, haunting settlements in search of scraps, and can be seen trying to huddle their legs into their under-plumage, for warmth. In the summer, when food is more easily found, ravens are shy of mankind. Although numerous, these birds are less of a pest to trappers than might be imagined. They may pick the eyes from a dead fur-bearer, or even begin to eat him, but not many cases are held against them, compared to such pests as the wolverine and wolf.

Ravens are generally seen alone or in pairs.

THE CANADA JAY (*Perisoreus canadensis*)

Though a small bird, no creature brings such attention to himself as the ‘camp-robber’ or ‘whisky-jack,’ as he is generally called. (The latter name is corrupted from wiskatchān, Algonquin.)

This is partly because they are so very numerous and remain in the Arctic throughout the winter, but chiefly because, as Mulvaney would have said: ‘ ’Tis th’ nature av th’ baste to be iverlashtin’ly obthrudin’ himsilf.’ Their range is to the limit of trees, and they are omnivorous, suiting their versatile palates to almost anything, but it nevertheless remains a mystery to me what they can find to live on, for nowhere in the forest will the smell of meat or the sound of chopping fail to attract from two to a dozen of these curious and bold little thieves.

Like the elephant’s child they are consumed with ‘ ’satiable curtiosity,’ and their boldness frequently leads to their undoing, though at other times it provides them with many stolen meals. I have seen a man carefully spread a large slice of bannock with bear-grease and put it down beside him while he drank some tea. There were nine of us sitting round that fire, talking and laughing, but when Jim put down his cup a whisky-jack was eating his bread and grease in a tree twenty yards away! They are wonderfully strong in carrying weights, and I have held a live one in my hand and been amazed at the vigour with which it pecked and struggled.

In appearance the whisky-jack is a greyish-blue with very full plumage and no conspicuous crest. He is about the size of a song-thrush, though his full plumage adds to his apparent plumpness.

RESTING WITH A PACK

LA CHUTE DIVIDE FROM YUKON TO MACKENZIE RIVER

A HALT FOR A MEAL AFTER GETTING OUR BOAT STUCK ON A YUKON SANDBAR

WHIP-SAWING LUMBER
FOR SCOW, FORT NORMAN

They are a great nuisance in robbing fish-racks, meat caches, and particularly in springing traps from which they are trying to steal the bait, and are so vigorous that they will even knock down deadfalls set for wolverine!

Indian children have great fun catching and playing tricks on whisky-jacks. They lie on their backs under a canvas or light blanket, placing a small piece of meat on their stomachs; and within a few seconds a whisky-jack lands on the canvas to take the meat. On feeling his feet touch, the child throws the canvas over the bird and catches him. They then tie a small piece of meat to his back, between the wings, and release him. Immediately about a dozen other whisky-jacks appear from among the trees and give chase to the unfortunate one with the 'pack'; they mob him, making a tremendous outcry, and very soon tear him to pieces and eat him, pack and all.

In spite of all his faults, and they are legion, the little Canada jay is a distinct asset to the Arctic forest. When all the land is bound by frost and the dead stillness of the extreme cold hangs like ether over the snow-covered country, the lonely camper is immensely cheered by the sociability of the only creature of the whole wide Northland that seeks his company. In the utter isolation of the endless wilderness of spruce, the little whisky-jack, fluttering round as close as he dares go to the grub-box, is immeasurably welcome, and I, for one, always leave him a substantial token of my appreciation of his company.

THE PTARMIGAN (*Lagopus mutus*)

Usually called the rock-ptarmigan to prevent confusion with the willow-ptarmigan, these North

American birds appear to be the same as those of the Highlands of Scotland. Essentially dwellers among the boulders and Alpine vegetation in the harsh climate of bare hills, these hardy little birds manage to pick a living from the moss and coarse grasses of the mountains, though it is hardly wonderful that an old Highlander once offered the opinion that their food was 'smaal stones and sich-like.' They nest in June in the more northerly latitudes and use the partridge's trick of running from their chicks, shamming a broken wing. Their cry is an ugly croak. The flesh is good, but somewhat dry and insipid.

The Willow-Ptarmigan (*Lagopus lagopus lagopus*)

There appears to be no doubt that this bird is the same as the ryper, or willow-grouse, of Europe, of which the red grouse of Great Britain is but a subspecies, probably changed by environment.

They are not so handsome as the red grouse in their very variable summer plumage, but in winter they are pure white except for the red round the eye and the black outer tail feathers. In the far northern latitudes they generally retain much of their white plumage throughout the summer. In the winter they grow thick feathers on legs and feet and leave tracks on the top of the snow that look like a much larger bird. The cry of the cock-bird is exactly the same as that of the cock-grouse of the moors. The first time I heard it was in the Rocky Mountains in summer-time while I was asleep in the moss. An old ptarmigan cackled within ten feet of my head, and I thought I must be dreaming of Scotland (or gone lunatic), never having realized the two birds were of the same genus.

They are monogamous and form coveys which collect into huge packs during the winter. Unlike the rock-ptarmigan, they are not confined to mountains, though they are to be found in all the northern ranges. The largest numbers I have seen have been among the willow islands of the lower Mackenzie River and the low steppes to the east.

They live mostly on willow bark in winter and berries in summer. They burrow beneath the snow at night. The Indians snare them with very fine wire by arranging little fences of twigs in the snow and placing the nooses in gaps big enough for the ptarmigan to walk through.

When in big packs these birds are extremely wild, but while in small numbers, in the summer and fall, can be approached more easily. I have shot four ptarmigan off one willow branch with a ·22 rifle on the Chandalar River in November. They sometimes fly into Fort Yukon and walk about between the cabins until shot at or chased away by dogs.

They form a valuable addition to the food-supply, but their flesh is nothing like that of their British cousins, probably because heather-tops is a richer diet.

The Canadian Grouse (*Canachites canadensis*)

The Canadian grouse, also called the spruce-partridge, spruce-chicken, and ‘ fool-hen ’ (the latter for obvious reasons), is the commonest member of the grouse tribe, with the exception of the willow-ptarmigan, and is found all over the wooded regions of Alaska and Canada.

These birds are very convenient to any hunter wanting an impromptu lunch, as they will sit on a tree and allow him several shots at their small (and remarkably addled) heads with his rifle. In winter they seem to disappear from north of the Arctic Circle, though I have seen them near Eagle, Alaska, in December and on the McQuesten River in January.

Ruffed Grouse (*Bonasa umbellus umbelloides*)

These fine birds, also known as ' drummers ' from the cock's habit of drumming with the wings, are found less frequently to the northward. The most northerly I have heard of was in the Yukon Flats, where I shot a very good specimen in August 1920. The drumming is not only practised during the mating season, but carried on till late October in some cases. As may be imagined, this bird is more frequently noted by ear than by eye.

A member of the grouse family which I believe I have seen in the Stewart River valley is the northern sharp-tailed grouse. Unfortunately I was unable to get a close enough view to make sure whether my birds were of this species or not.

The Canada Goose (*Branta canadensis*)

Every spring, following the thaw of the ice, these wonderful birds fly homeward to their nesting places in the Northland lakes; thousands upon thousands of them, cleaving the sky in arrow formation and filling the air with the wild, musical call which is the call of the new spring.

In April and May the northern rivers are released by the sun from their shell of ice, and, as they awaken to fresh life and the green growth all around starts to put on a fresh mantle of foliage, these countless thousands of winged buglers, flying steadily northward, herald the passing of the winter and the end of he long months of snow.

LOOKING ACROSS THE MACKENZIE OIL-FIELDS

FORT McPHERSON, PEEL RIVER

All de winter on de Shaintee
Tam she 's good an' work she 's plaintee,
But we 're not feel very sorree
W'en de sun she 's warm its face;
W'en de moosh-rat an' de beaver
Tak' som leetle swim on reever,
An' de sout' wind scare de snow-bird
So she 's fly some col'er place.
W. H. Drummond.

When the snow-birds have passed northward over the newly melting snow to their summer homes near the Polar seas, when the open leads break alongside the banks of the willow islands and the green grass shows on the newly uncovered shore, the black phalanxes of geese swoop down from the sky to rest in the rippling water and feed on the weeds and grass. Although we all agree that the winter is better than summer, there is something wonderfully rejuvenating in the advent of the spring signalled by the clamour of these migrating birds.

All along the Mackenzie River, in May, the countless thousands rise and fall in their separate flocks, in the distance resembling the blowing of sand or snow by a gale; the roar of their voices is heard miles from the river banks.

In June they have mostly reached their nesting places among the lakeside lilies, but throughout the summer they are seen in flocks, waddling about the river banks, feeding on the goose-grass with a sentinel on the watch who never betrays his trust. On being disturbed they rise in unison and fill the still, summer evening with their humming pinions and clamorous honking.

Their nesting places are not easy to find, hidden away as a rule on the edge of some little lake along the Mackenzie Valley, Yukon Flats, or the northern swamp-land of the Old Crow River where they are little disturbed by mankind.

They are easy to shoot in the migrating time, but it is hard to approach within gunshot during the summer. They are very good to eat, the only unfavourable criticism I have heard being passed by Mr. John Firth of Fort Macpherson, who said, 'A grey goose is a verra aakwarrd burrd; it is juist too much for wan and not quite eneuch for tu!' The Arctic climate increases even an Orkney man's appetite!

The Snow Goose (*Chen hyperboreus nivalis*)

Locally known as the 'white wavey,' these fine birds enter the North in company with the Canada or 'grey' geese, but go still farther towards the Pole to their nesting places. They only stop in the forest country to rest and feed on their way to the vast tundras beyond the timber. They have been seen flying over Victoria Land towards Ellesmere Land, and, so far as I know, their nests have never actually been discovered, consequently little is known of their habits.

The snow goose has a circumpolar distribution, those of North-Western America being the smaller variety, known as Ross's goose, and also the greater snow goose. The latter are the first to arrive and depart on their migrations.

Other geese known in the country are the white-fronted, or 'laughing' goose, Hutchins's goose, and, rarely, the blue goose.

The Whistling Swan (*Olor columbianus*)

This bird, known also as the whooper swan, is essentially an Arctic species, breeding on the little lakes of the open tundras. In the spring and fall little flocks of these graceful birds may be seen floating down to midstream of the big northern rivers. Their very musical cry gives them their name and they are a picturesque addition to the huge flocks of other migrant water-fowl. These swans fly at a tremendous pace—it has been estimated at a hundred miles an hour. They are very shy of man, probably due to indiscriminate killing in southern latitudes.

The trumpeter swan does not appear in the Northland.

The Sandhill Crane (*Grus canadensis*)

These exquisitely graceful birds breed well within the Arctic Circle, over which they fly at enormous height, their arrow-shaped flocks taking gradual shape, as they approach, till each individual, his legs stretched behind him, can be plainly discerned before the line gradually closes up again and disappears into the distance. These cranes are very wary and hard to shoot, but not being good for food, are seldom killed in the Northland. They are said to pair for life, and to pine away and die on the loss of their mate, which makes it an additional crime to kill them.

I was once compelled to shoot one for food; it was walking alone on the bank of the Porcupine River and allowed three rifle shots to be fired without attempting flight. I believe it had lost its mate and also its interest in life. It was extremely nasty to eat.

THE WHITE PELICAN (*Pelecanus erythrorhynchos*)

The existence of these huge birds in the North is interesting inasmuch as they are only known round two localities, in both of which they breed in enormous quantities. One colony is at the Fort Smith Rapids on Slave River, the other at the Pelican Rapids of the Athabasca. As these birds are harmless and quite uneatable no one ever bothers them, and they return year after year, an offence to the eye of an artist, perhaps, but a joy to the nature-lover.

They certainly are the most amazing creatures to look at ; I never see one without recalling the rhyme :

A wonderful bird is the peli-can,
His bill will hold more than his belly can ;
He can hold, in his beak, enough food for a week,
Though I 'm hanged if I see how the h—l 'e can !

They live mostly on fish, which they hunt in unison, swimming beneath the surface in shallow places. They also eat worms.

THE WILD DUCKS

During the spring migration the wild ducks are rather overshadowed by the more conspicuous geese. Yet they are very numerous, descending in huge flocks, often of mixed varieties, on the open leads in the melting river and lake ice. Sometimes they are found sleeping near the shore, in some quiet eddy, in such a state of exhaustion from their flight that they can be killed with sticks and stones.

Conspicuous amongst them all is the mallard, the finest of all fresh-water ducks and perhaps the commonest.

Others include the green-winged teal, the pintail, the golden-eye or 'whistler,' the scaup or 'blue-bill,' the American pochard or 'red-head,' Barrow's golden-eye or Iceland duck, the buffel-headed duck or 'butter-ball,' the long-tailed duck or 'old squaw,' the American widgeon or 'bald-pate,' the shoveller or 'spoonbill,' and the wood duck.

After the migration of these more edible and sporting ducks is over, the scoters begin to come in, flying in little flocks together. The American scoter is known in the North as the 'black duck,' though it has no connection with the black duck of the eastern provinces. Following these come the surf scoters, also known as 'skunk-headed coots,' and the white-winged scoter, commonly called 'out o' luck' ducks from the cry they make as they fly low along the water. None of these scoters are good to eat.

In the fall, about the time the shore-ice is forming on the big rivers and the creeks are freezing up in the mountains, the ducks start their southward flight, following the main waterways, flying for a while, and then resting on the stream.

A man in a boat can have splendid shooting at these ducks and kill as many as he can want, for they keep coming thick and fast. The best shots are given by the 'butter-ball,' which fly a great deal faster than any others, even than the teal. The most gorgeously coloured are the wood ducks, whose habit is to nest in trees and on stumps above ground. They are not very numerous in the North.

Among the commonest are the pintail, perhaps one among the most beautiful of all ducks in their combination of bright colour and symmetrical outline. The canvas-back duck, so famous to epicures, does not travel farther north than Great Slave Lake, and is not seen in the Yukon Territory or Interior Alaska. The famous eider duck, though common round all the coast, does not appear inland. Ducks sometimes remain a surprisingly long time in their northern haunts before starting southward. Last October I saw a little flight of six mallard in the Yukon Flats at a time when all the lakes were frozen and ice was running thick in the river. They had kept a small hole open on a lake and looked quite comfortable, but I doubt if they ever reached their southern home.

Other Birds

Many other water-fowl are seen throughout the summer in the Arctic lakes and rivers. Chief among them are the ‘ loons,’ as all divers are called indiscriminately in America. The king of these is the great northern diver, and others include the red-throated and black-throated divers, the great-crested grebe, and the dabchick or ‘ Hell-diver,’ as they are rather picturesquely called.

It seems amazing to me that such weak fliers as the divers can cover such enormous distances on the wing in so short a time.

‘ Loons ’ add enormously to the fascination of the northern summer nights. When the air is perfectly still, when not a leaf moves and the midnight sun throws a red glare round the sky, tinging the glassy surface of the calm lakes, the loons start their weird, wild crying. The Indians say that they are calling for wind, without which they cannot fly; it is a peaceful and not unmusical sound, associated with the light summer nights by every one who knows the northern waterways.

Mergansers are common in the Yukon and Mackenzie

Rivers. They are of the red-breasted variety, otherwise known as 'saw-bill' or 'fish-duck.' They live on fish and are uneatable, but they are handsome birds with the bright red bill against the tufted blue head and the gay colouring of their big bodies. The name 'merganser' means 'diving goose,' from their habit of capturing fish under water. They really belong to the duck family, but appear to be weak in flight and more nearly resemble the divers in their habits.

Gulls and terns of every kind abound on all the rivers in the summer. I have always somewhat disliked gulls since watching about fifty of these graceful vagrants fighting like fiends over the eyes and flesh of a stranded human corpse. They are not above cannibalism if opportunity presents itself. The commonest terns are of the Arctic species, beautiful white sea-swallows with black caps. They are very thick on the Mackenzie Delta, their ugly cry, 'Bzzzz!' seeming rather incongruous from so elegant a bird. They lay their eggs on the sand-banks of the rivers, and these (unless semi-hatched) make a welcome addition to the traveller's diet.

Many different kinds of small shore-waders are found round any stretch of water in the Northland, mostly rails and sandpipers. The bittern is not unknown, but is rare, and I never saw one. Belted kingfishers are fairly common, living chiefly on the little grayling or bluefish of the hill streams.

Three or four different species of woodpecker are found as far as the northern limit of trees. I have seen a lesser spotted woodpecker in late November on the Chandalar River.

One cannot conclude even the briefest and skimpiest remarks on the bird-life of the Arctic forests without a few words about the little snow-bird, or snow-bunting. In April on the Mackenzie River these little birds come fluttering down to the North in flocks, settling on the snow to pick up what vegetable matter may have been blown from the trees. Then they go twittering on again, flying to the farthest polar regions or to the cold mountain-tops of the northern ranges.

Besides living at more northerly latitudes than any other small bird, the little snow-bunting is the only living creature ever found at a height of two thousand feet above perpetual snow line.[1] They live on the early buds of small Arctic plants and on grass seeds.

In spite of their hardiness the snow-birds sometimes get caught and frozen by a change of weather. Last August, on the Porcupine River, a very cold spell came on which should not have come till a month later. It snowed nearly two feet on the North Bend and at night the temperature went close to zero. I was camped, for two of those days, on the bank at Driftwood River, and at midday the snow melted off very quickly, soaking everything, but those two nights were among the coldest of the whole snap (I had to chop the lake ice with an axe in order to break it). The poor little snow-birds, thousands of them, were freezing to death along the banks, huddling together for warmth. I took several to the fire and dried out their soaked and frozen feathers, but the pathetic little corpses were strewn along the beach for miles and miles. Curiously enough, that cold snap, coming in the middle of what is usually the warmest month, did not seem to affect

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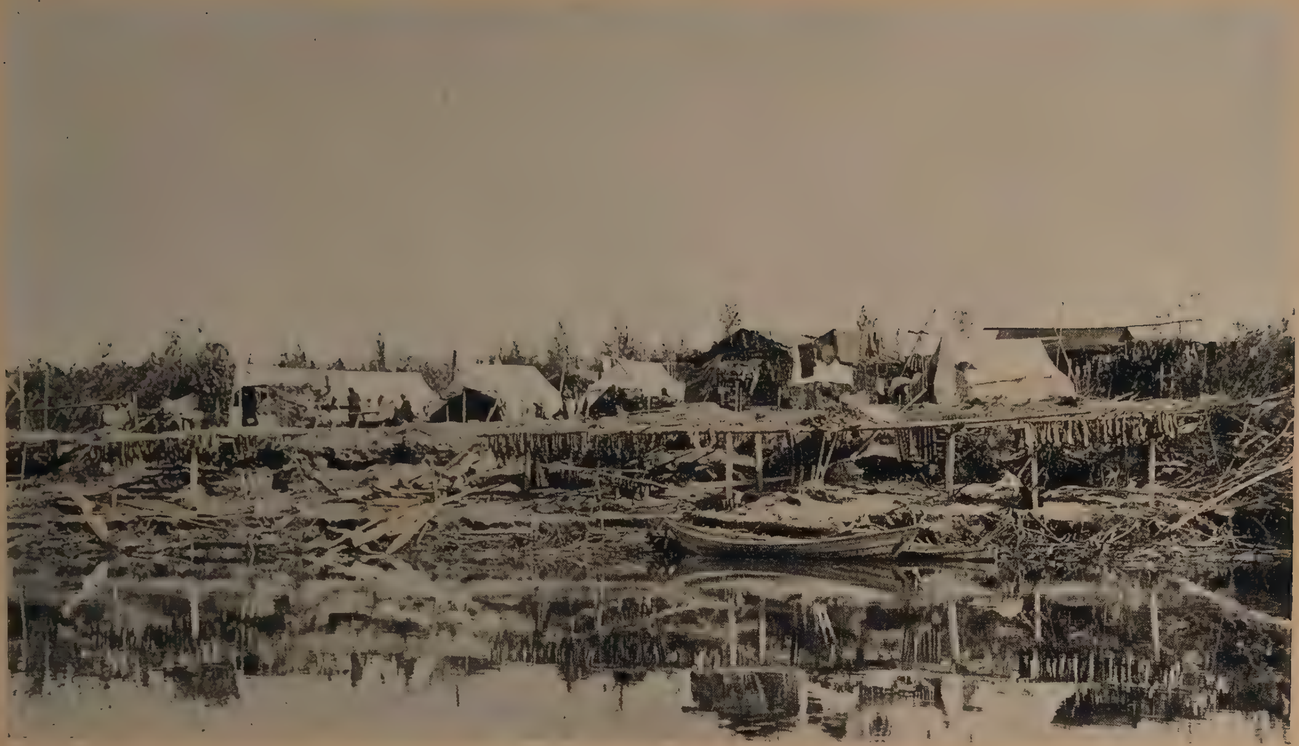
[1] In Lapland; from Linnaeus.



FISH-CAMP ON PORCUPINE, SHOWING DOG-SALMON ON RACKS

the lives of other small birds or beasts to any noticeable extent, although the whole summer had been sufficiently inclement to prevent many of the smaller migrants from reaching as far north as usual.

The presence of humming-birds in the Arctic regions is a fact which I have not been able to find recorded in any text-book ; some of these give Mexico as their northern limit of range. But, for all that, there are humming-birds in the Arctic regions, for I have seen them among the foothills of the Rockies at lat. 68° N. I am told that they are very common among the Rat Lakes a little to the north of where I saw them. I think that they nest in the rough niggerheads, but possibly they do so in the trees. I never heard of these little birds north of the limit of trees. A friend of mine who has been prospecting in that country for fifteen years tells me that they are common, in midsummer, all along the Davidson Range and round the head of Old Crow River.

The only other humming-birds I have seen myself was one which got caught behind a glass window in Skaguay, Alaska, and another which flew past me on Lynn Canal a few miles south of there. I have also seen one near High River, Alberta.

It seems almost incredible that these tiniest of all birds, the little living jewels so naturally associated with tropical climes, should fly from the sweltering forests of Central or South America up to the Arctic regions. But so it is, and it is not in exceptional cases, for they migrate to these high latitudes year after year. At least they get an abundance of food by doing so, for nowhere is insect life so common (or more of a pest) than in the Arctic regions.

FISHES

The Quinnat Salmon (*Onchorhynchus*)

This fish plays a most prominent part in the lives of the people inhabiting the Yukon Territory and Alaska. Though it does not reach north of the Bering Straits, two instances are on record of salmon straying as far through the Arctic Ocean as the Mackenzie Bay and ascending Peel River. These, however, are exceptions ; the various species of salmon are confined to more southerly latitudes. They are numerous in the Yukon River, swimming to the heads of the remotest of its tributaries, unless prevented from ascending by cataracts.

The habits of the quinnat salmon are much like those of the Atlantic fish. They ascend the rivers to spawn on the gravel beds in the shallow headwaters. The female, on arriving at the spawning ground, is in extremely poor condition. It is supposed that salmon eat nothing while in fresh water, and indeed this seems likely, for they are always found with empty stomachs, and the higher they ascend the streams the poorer do they become. On reaching the spawning ground the female, presumably by rubbing the greatly distended paunch into the gravel, hollows a rut in which she lays her eggs ; these are immediately fecundated by the male fish, who remains in close attendance. The eggs, on being fertilized, sink to the bottom and are covered with gravel by the female fish. The males swim about the spawning grounds fighting, presumably for the privilege of attending to the females. The eggs are hatched into alevins, somewhat resembling tadpoles, which exist for some days in retreat beneath some stone, living on nutriment supplied in a sack in the abdomen. When this is exhausted, they take the form of fish and their growth starts apace.

In a month or six weeks they become ‘ parr,’ fish of about four inches’ length. How long the parr remain in the waters of their birth is not satisfactorily known, but in one to four years they assume the silvery scales of the adult fish and are then termed smolt. At this period they begin their perilous peregrination down to the sea, and it must be a very small percentage of the fry developed each year which ever reach salt water at all. The gulls and other fish-eating birds prey upon them in thousands, trout and pike devour them wholesale, and the hungry ‘ kelt,’ as the female salmon is termed once she has spawned, feeds on her young relations as she accompanies them on the downstream journey seaward. That such overwhelming numbers should be devoured each year, and that the species should survive, is due to the enormous supply of ova spawned by each fish. It has been reckoned that a salmon of twenty-five pounds’ weight would produce about twenty-five thousand eggs.

On reaching the sea the little smolt is beset by additional dangers in the increased number of rapacious creatures anxious to devour it. In spite of this, many thousands return to the river the following summer in the form of ‘ grilse,’ as the British salmon are called at this stage, or ‘ silver salmon,’ as they are known on the Yukon. The weight of the silver salmon would average between six and seven pounds.

Their subsequent life is much surrounded in mystery and open to surmise. The salmon is essentially a sea-fish which only ascends rivers for the purpose of spawning, presumably as a protection to the young. It is in the sea that they grow from smolts to the great monsters which charge into the wheel of the Yukon fisherman and fall struggling into the box.

The quinnat or ‘ king ’ salmon are bigger than the Scottish fish, averaging over twenty-five pounds, and commonly running to over sixty pounds. Eighty pounds is not uncommon, and fish have been caught, before entering fresh water, of a hundred pounds’ weight.

After swimming 2500 miles to the upper reaches of the Yukon, the fish are so emaciated that they are unrecognizable as the fat, shining beauties which left the Bering Sea. Only pausing in the eddies for an occasional rest, they struggle continually upstream, the stronger fish choosing to swim up the swiftest portions of the current. For this reason the fish-wheels are always put in the swiftest places, where the river rounds a bend, and therein are caught the finest salmon. The nets, which can only be laid in the eddies, only take the tired fish resting there.

The king salmon reach the middle Yukon at the beginning of July, and at that time every native and white man is busy catching his winter’s supply of dog-feed. They are extremely good to eat, but compare unfavourably to the British salmon, even those caught in the lower reaches.

In the last few years a salmon cannery has been established at St. Michael's to catch those fish which yearly ascend the Yukon. Consequently the numbers have been so reduced as to threaten with starvation many of the natives of the interior. That the law should allow a canning company to cut off, for purely mercantile reasons, a large portion of the most important article of food in two vast territories and cause great distress among the populations, was nothing short of a scandal. Happily, through the energy and perseverance of Archdeacon Stuck, this evil was mitigated and the operations of the cannery have been confined to a restricted period. The fish supply has, nevertheless, decreased perceptibly since the installation of this concern.

Certain tributaries appear to attract the fish in extra large numbers, notably Salmon River and Salmon-Trout River, which flow into the Porcupine. At the heads of both these are hot springs, but whether this is the cause I do not know. At the favourable places on the Salmon-Trout River it is easy to catch two hundred fish in a day with the gaff. The fish, on reaching the warm water of these streams, die (if not all, at any rate in very large numbers) from exhaustion and possibly from some effect of the hotter water.

THE DOG SALMON

These fish, inferior in taste and condition to the king salmon, are nevertheless caught in very great numbers in the Yukon for dog-feed. Their flesh is yellowish, and they are small in size, not averaging much over ten pounds. They are taken in large numbers in wheels and nets.

On reaching the more remote headwaters of some of the rapid mountain streams, these fish are in a most emaciated condition, loathsome in feel and appearance.

They run to the middle Yukon about three weeks later than the king salmon.

The Whitefish (*Coregonus canadensis*)

The 'whitefish,' as the coregonoids are invariably called in America, are essentially fresh-water fish. They are found in almost all lakes and rivers, not ascending the small streams, however, for they live in deep water, feeding on worms, snails, and insects on the muddy bottoms. Though whitefish are commonly caught in nets set in the river-eddies, in company with salmon, 'inconnu,' and herring, the usual way in which they are taken is by means of a net sunk into a deep lake. They can thus be caught at all seasons of the year, which is invaluable to the natives, as during the eight months of winter only the lake fish can be caught at all.

Whitefish average about two pounds in weight, and are commonly caught up to three pounds. They are usually in good condition throughout the year, and their white flesh compares favourably to salmon, for, not being so rich, it can be eaten continuously without becoming wearisome. The best way to cook these fish is to bake them in their skins without cleaning. The skin is then removed like a hard shell, and the flesh can be lifted easily from the entrails.

The Grayling (*Thymallus vulgaris*)

The 'bluefish,' as it is called, is a common denizen of the mountain streams in the more northerly latitudes. Great quantities are found to the very heads of the small creeks at high altitudes and are easy to catch with a wet fly on an improvised rod, failing which a piece of bacon or liver is a good bait.

Bluefish vary considerably in colour, but as a rule they are greyish-blue with the under parts silvery; the most conspicuous feature is the very large dorsal fin. The average size of grayling taken in the smaller hill-streams is about half a pound, but fish of two pounds are common, and up to four pounds not unknown. The Klondike River derives its name from the Ai-ya-na 'thron,' plenty of, 'duick,' grayling.

THE 'INCONNU'

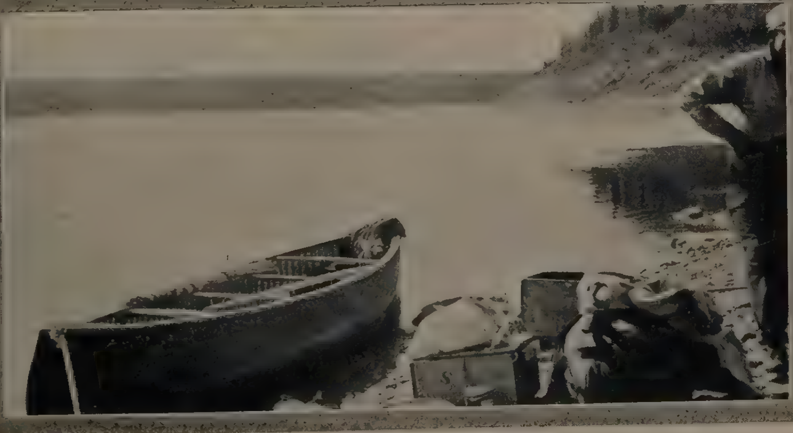
Generally called the 'cony,' but misnamed the Arctic salmon, this fish makes an admirable substitute for the salmon on the Arctic watershed. The run up the Mackenzie begins in the early part of June, and the fish are caught in the rivers till late August. The weight of 'cony' averages roughly ten pounds. When caught they are usually found to be in good condition, not seeming to exhaust their vitality by starvation and continual travel, like the salmon. Probably they spawn in the lower waters of the rivers, and undoubtedly they feed in fresh water. In appearance the cony is more like a cod than a salmon, but not being a 'fishologist,' I cannot give a reliable description beyond the fact that their pink flesh is extremely good to eat and has great sustaining power for dogs. In mid-August, on the lower Peel River, I was lucky in witnessing a curious battle between a large number of cony, mostly of small size (three or four pounds), and a shoal of whitefish.

The point was an eddy into which ran a very small streamlet; the fish were jumping out of the water continually and making a great disturbance. We thought that they must be spawning until we noticed that they were certainly both cony and whitefish. We examined the streamlet but could find nothing that they might have been fighting over. My companion and I fired several shots, but were unable to kill any fish, so we left them, still fighting, after watching them do so without pause for half an hour. Cony are also common in the Yukon.

The Pike (*Esox lucius*)

Pike, or 'jack-fish,' are common in all lakes and rivers throughout the North. Their habits are too well known to need any description. The commonest method of catching them is by 'jiggling,' with hook, line, and flesh bait, through a hole in the ice. In some places they are extremely easy to catch in this way, though I never saw any big pike taken from the northern waters. The largest have been about five pounds' weight.

Other fish commonly caught in the North are sea-trout, suckers, loche, and herring. The sea-trout are universally distributed, but are particularly common in the Great Slave Lake, which holds an unlimited supply of these valuable fish. Herring are often caught in the smaller meshed nets in the Mackenzie and to a lesser extent on the Yukon. There are vast numbers of them in Great Slave Lake also. Loche and suckers are poor fish compared to the other kinds. They are mostly caught in the lakes in the whitefish nets. Sturgeon do not range as far north as the North-West Territories.



EZIAS AND THE OUTFIT AT HALF-WAY ISLAND
DAVE MCRAE AND THE CANVAS BOAT WE BUILT (LOWER PORCUPINE)
DAVE MCRAE AND OUR CANOE, JULY, 1922

MINERAL RESOURCES

Gold

That gold was to be found on the Yukon was known to the very first pioneers, both Scottish and Russian, but they were fur-traders, absorbed in acquisition of pelts, and gave little thought to the possibilities of mineral wealth.

Fur-traders are chiefly busy in the summer, and it was long before winter mining was thought of, so it is doubtful if they could have found time to mine even had they wished.

Arthur Harper first conceived the notion of making a business of gold-mining in the Yukon Basin. With a number of companions, he revisited the country in 1873 by way of the Mackenzie, and made his way round to White River, and, subsequently, up the Stewart. In the next twenty-four years he prospected almost every river, except the Klondike! It was many years before the idea occurred to him of mining in the winter, and then the system consisted of lighting a fire on the gravel-bar and digging out the thawed dirt, then lighting another, and so on. The steam thawer was a much more recent importation. The usual method was a simple sluice-box where there was sufficient fall, or a ‘ rocker ’ for mining the river bars. Two cents to the pan was considered a good prospect.

It would be too long a story to enumerate all the districts where gold has been found and mined, but suffice it to say that it is found in almost every creek in the Yukon and Alaska, though not everywhere in paying quantities. The biggest field was, of course, the Klondike ; next in order come Fairbanks, Nome, Birch Creek (Circle), Forty-mile, Kuskokwim, Koyukuk, Chandalar, Iditerod, and very many smaller fields of lesser importance. Some of these are abandoned, some are running out, others are going forward.

On the Klondike River the Yukon Gold Company are now extracting a million dollars a year, with dredgers.

The days of quartz-mining for gold have not yet arrived in the far North. There are rich veins of quartz in several places in the Endicott Mountains, and a few on the Canadian side, notably Caribou Island on Great Slave Lake. But transportation is so difficult that quartz-mining remains a thing of the future.

Of placer gold the future is on the Canadian side, east of and among the Rockies. Good prospects have been found on the Liard River and its tributaries, notably the Nahani River, and, in my opinion, the next big strike will come from that valley. To the east of the Mackenzie there seems little hope of finding anything startling. I have found ‘ colours ’ on many creeks running in from the east, but no coarse gold and no prospects. If there is any gold-mine in that district it is probably farther east still, beyond the Franklin Mountains, in the valley of the Yellowknife and the Great Bear Lake region, where there are indications of good quartz lodes.

In a country so huge, with a population so small and so hampered by difficulties of locomotion, it cannot be imagined that even centuries will show all the wealth that lies within reach. Most of the ground, except along the larger waterways, is only vaguely known from Indian report. A handful of men cannot, except by the purest luck, chance on anything in a land of two million square miles. Most of the discoveries are yet to come.

SILVER

Silver-bearing galena and zinc-blende are found on both shores of Great Slave Lake, and samples have been brought from many parts of the Barren Lands, though it has never been prospected in those regions. On the Yukon side, however, the silver-mining is rapidly becoming one of the most important factors in the industrial life of the country. The mines on Keno Hill, situated high above timber line forty-two miles from Mayo Landing on the Stewart River, are claiming the superfluous populations of Dawson and many other camps. The ore, which is mostly free from zinc, is mined by two companies (at the time of writing), and so rich that it is shipped all the way to Seattle or Tacoma for smelting. It leaves Keno on sleds hauled by caterpillar tractors, runs down from Mayo to St. Michael's in barges, and is then reshipped on to a sea-going vessel. Enough prospecting has not yet been done to ascertain the wealth of galena in the district, but quite sufficient to show that a very large area is highly mineralized and will undoubtedly prove a source of immense wealth, possibly rivalling Ontario.

Native silver is found in small quantities not far south from Mayo.

COPPER

The three most prominent districts of the North where copper is known to exist in large quantities are the Coppermine River district between Slave Lake and Coronation Gulf; those mountains in Alaska from which flow the White, Copper, and Tanana Rivers; and the mountains to the west of Whitehorse. It is mostly in the form of native copper and malachite, but, although it is mined in the western fields, I do not think any great progress will be made for a long time.

On White River the big chunks of native copper have drifted down to the creek bottoms, some of them weighing two or three tons apiece, but the river is so hard to navigate that it is worth nobody's while to export them.

TIN

Some very fine cassiterite has been found in the Endicott Mountains at the headwaters of Salmon (Sheinjuik) River, and 'stream' tin has been panned from Berries River, flowing from the Davidson Range. No prospecting has been done to follow up the sources of the latter, and the extent of the Salmon River deposit is yet undefined. Tin is reported from south-east of Great Slave Lake, but I would not vouch for the truth of this.

MANGANESE

There is undoubtedly a large field of manganese in the Endicott Range, between the Colleen and Salmon Rivers, but it will be long before these (or any other)

CAMP ON LOON CREEK ON THE MACKENZIE OIL-FIELDS
HOWLING DOG ROCKS, PORCUPINE RIVER
A DRY RIVER-BED, EAST OF MACKENZIE

mines will be of much value owing to difficulty in transportation to these remote and inaccessible mountains.

Platinum

Platinum is found in small quantities, associated with fine gold, throughout the Mackenzie Basin. I found some in the Franklin Mountains in a creek where no gold was to be panned at all. I believe this to be very unusual. If ever the Liard becomes a big field of gold-dredging, which I believe it will, platinum will be a valuable by-product.

Iron

Iron ores are found in many parts of the North. Probably (and this is surmise) the largest fields will be the Gravel and Great Bear Rivers, the Ogilvie Mountains of the Yukon Territory, and some places in the Barren Lands. The time has not yet come to look on coal or iron as commercial propositions in regions so remote from the civilized world, but the presence of coal in the Mackenzie Valley will eventually help to make that district an important industrial field.

Coal

On several points on the upper and middle Yukon coal has been worked for local supply, but the big coal-fields of the North are those areas of the Mackenzie Valley including, and south of, Gravel and Great Bear Rivers as far as Slave Lake. The coal outcrops at several points, notably just above Norman, where it has been burning for two centuries, but it is not of very high grade in that part. Coal is also reported from the Barrens. Altogether the known available quantity of lignite coal, in two hundred square miles, amounts to five hundred million tons, but I have reason to suspect that a much larger coal area will eventually be defined.

PETROLEUM

The presence of oil has long been known in the district below Norman (Mackenzie River) owing to seepages at many points. It is suspected on Slave Lake, in the Pine Point and Hay River districts. In 1920 the Imperial Oil Company sunk a well at a point fifty-three miles below Norman, bringing in a big gusher of very high-grade oil. This oil is so light that it does not freeze, even at the lowest temperatures.

The remoteness of the region from effective transportation, coupled with the glut of oil on the American market in 1923, has caused this field to be abandoned, temporarily, and it is now held in reserve. The extent of the field is immense, stretching, as near as can be estimated by the limited exploration, from Bear and Gravel Rivers, west to the main range of the Rockies, north to Thunder River below Good Hope, and east—no one knows how far.

The only practical way to export the oil from this great field will be by means of a pipe-line running up the Liard Valley, over the Cassiar, and down the Skeena to Portland Canal on the North Pacific. Some boring has been done on Slave Lake, but with no results. For many years people have been drilling for oil on the Athabasca, in the vicinity of the famous 'tar-sands,' but oil has never been proved in any commercial quantity. The asphalt in the McMurray region is the best product hitherto; a street in

Edmonton is paved with it. Asphalt is also found near Slave River.

There is reason to suspect the presence of petroleum in the Porcupine Valley in the stretch below Old Crow River, and in the Endicott Mountains the Esquimaux have stories of 'water that will burn' which may or may not be true, but bituminous shales are certainly found at the head of the Chandalar River.

Mica

The Desnedekenade Indians report very large deposits of mica (muscovite) to the south of Great Slave Lake. I have seen a sample of this, but was unable to get any satisfactory evidence about the size of these deposits. Several small prospects of mica occur in the Rocky Mountains, but none are worked in the far North as yet.

Other Minerals

Sulphur springs are common along the Rockies and throughout the southern half of Alaska, also in the Slave River district.

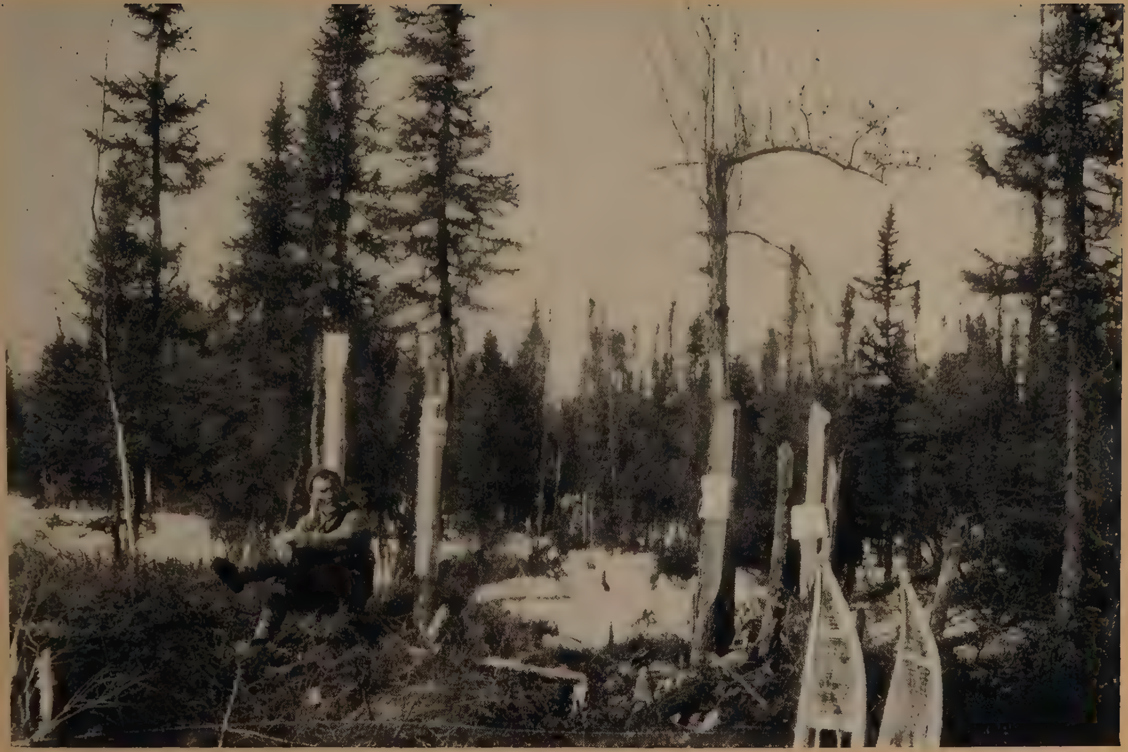
Potassium salts are found in various places on the middle Yukon. Rock salt exists in unlimited quantities near Fort Smith, near Fort Norman, and on the Athabasca River.

There are very large beds of good brick clay in the country round the mouth of the Liard River. Marble is found south of the Rampart House, on the Canada-Alaska boundary; also in the Barrens, west of Hudson's Bay. Samples of good jade have been brought to Allakaket by Esquimaux from the headwaters of the Koyukuk, but, so far, no white man has discovered it.

Though scarcely coming under a heading of minerals, it would be a pity not to mention the mastodon ivory deposits. These are very common in many parts, notably on Old Crow River, on Birch Creek, and on Rivière Travaillant, which drains the steppe-lands to the east of the lower Mackenzie. They are continually found by gold-miners, deep in the frozen gravel ; a man I know once found a long, red hair among some bones, at a depth of sixty feet.

But on the three streams mentioned, the spring floods annually bring down drifts of this old ivory, which is stranded along the beaches in the fall. It is found associated with remains of woolly rhinoceroses, two-toed horses, wolverines, reindeer, foxes, etc. A miner told me that he once found excreta of moose at a great depth, in company with several fossil bones.

This ivory is used for making ornaments, etc., but has little market value, for it checks, probably through having been so frequently frozen and thawed.



OUR CLAIM STAKES ON THE OIL FIELD
(The snowshoes straighten out in the melting snow)

SOME OF THE AUTHOR'S TRAVELS

FALL HUNTING ON THE YUKON

September 1920.

Few memories can be more pleasant to recall than one's first hunting expedition in a new country. On September 10, 1920, I landed on the south bank of the Yukon, with my Indian partner, 120 miles above Fort Yukon. The river boats had been seeing the caribou cross for days in the reach above Circle City, and our object was to kill a big load of these most convenient animals and as many moose as possible, to raft down to Fort Yukon before the freeze-up in early October.

September is the pleasantest month in the North. The mosquitoes have gone and the cold has not started. It is freezing pretty steadily in the shade, and the first fall of snow generally comes about the middle of the month.

On our first day we chose a place for camp, and hauled our boat on to the bank. No caribou were visible anywhere, but we could see a big bull-moose, wandering over the thinly-timbered hillside, miles away across the river. This we took for a good omen, and, that afternoon, Esias and I went up a hill to take a look-out over the creek valley to the south. After much spying, miles away, we saw, or rather Esias did, a big bull and a cow, feeding on the ground willows in a nigger-head flat. But they were very far, at least ten miles from the river, and it would have been a Herculean labour to get them out. So we left them, darkness coming on, and returned to camp, where Esias imparted sage counsel on the methods of hunting moose. I spent most of that night practising moose calls, to his undisguised amusement.

Next day we went up the look-out but saw nothing. We waited for half an hour, till 10.30, when the moose get up from resting, but nothing appeared in sight. So we started in the direction of the place where we had seen the bull and cow. We kept walking all day, but neither heard nor saw anything, and by the time twilight was coming on I was in as near a state of physical collapse from exhaustion and thirst as man can be without actually falling. It was my first experience of big nigger-heads, and I hoped at the time that it would be my last. Esias, who was accustomed to them, was tired also. We saw signs of plenty of moose that day, newly smashed trees where they had worried the velvet off their antlers, tracks and signs everywhere. After a twenty-mile walk, we were sitting in the nigger-heads, about seven miles from camp. I was gasping with weariness and Esias was lighting his pipe, when he blew the match out and listened intently.

‘ Sychah ! ’ [1] he said, ‘ I hear moose ! ’

I heard nothing, but suddenly felt less weary.

‘ Listen ! ’ he said.

I listened, and presently in the dim distance heard the scraping of horn against dry wood, so faint as to be scarcely audible in the perfect stillness. But Esias was searching the ground with his keen eyes, and presently leaned over and whispered :

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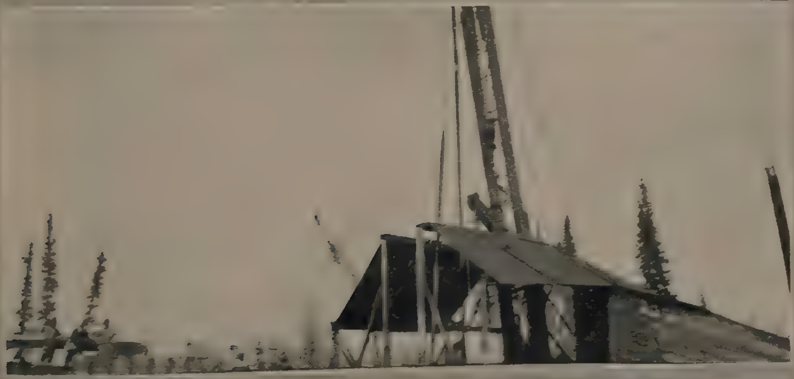
[1] Partner.



LOOKING TOWARD THE DISCOVERY WELL FROM BEAR ISLAND,
MACKENZIE OIL-FIELDS
DISTILLING GASOLINE AT FORT NORMAN OIL WELLS
THE CABIN AT THE OIL WELL

'Make no noise! Moose only mile away; he hear everything!'

I followed his line of sight and presently saw a huge bull moose shouldering his way through the brush, the newly cleaned horn points shining white in the fading light.

'Follow me just behind,' Esias whispered, 'walk same time.'

With that he gave a bass grunt, 'Ooah, ooah!' no louder than a quiet human voice. I saw the big beast stoop and wheel round, and perceived the reason for the caution of my partner. He grunted again, and the bull started crashing through the young forest, coming in our direction.

Esias started walking with a slow and rather pompous step in the direction of our intended quarry, making no attempt to avoid noise, I following in step immediately behind him.

He had taken the shoulder-blade of a moose from his belt, and started rasping the trees with it, making a noise like the antlers of the moose. Periodically he uttered the short, grunting noise of the love-sick and pugnacious bull.

Soon, however, the genuine article arrived, tearing through the brush like a demented steam engine, grunting threats of bloody murder to creation in general and us in particular, travelling through the thick spruce and tangled willow patches like an avalanche and at an incredible speed.

He did not look ungainly or out of place in that setting, he only looked huge, murderous, and magnificent. When he got within two hundred yards or so, Esias, by a simple act of ventriloquism, sent him off at an angle, and as he arrived at a good broadside I fired into the point of his shoulder. He wheeled and galloped away like a tornado, and Esias started firing rapidly with his 30·30. 'Shoot again, sychah!' he shouted, and I fired another shot which, by a fluke, hit the back of his head. The great brute reared up to a tremendous height and toppled over sideways, smashing a tree, a great mass of carrion that five seconds ago had been a magnificent living animal.

For years he had wandered monarch of the Arctic forests, and now he was dead, all fifteen hundred pounds of him, because men must eat meat to live. He was a magnificent specimen of the biggest moose in North America, the *Alces gigas giganticus* of Alaska. His head alone weighed 120 lb.

The next few days were spent in packing the meat through the nigger-head flats and thick forest down to the bank of the Yukon. By the time it was all transported I was sadder, wiser, and thinner. Three hundred pound loads of frozen meat weigh heavy on unaccustomed shoulders.

But I was not satisfied to have only killed a beast and not hunted him myself. Every night I practised the calls, the grunt of the bull and the long-drawn bellow of the cow, until Esias ceased laughing and said that he thought I had got it good enough.

We were disappointed at not having seen any caribou, being afraid of having missed the migrating herds, and we would not be able to kill and pack in enough moose meat before the freeze-up.

When the big bull was lying in sections on the sandbar, we started off in different directions, Esias going up the main branch of the creek and I up a side branch towards some thick forest.

I went up a hill to spy out the land, and after raking the flats and more open spaces with my glasses for about an hour, I saw two moose about four miles off in some burnt timber.

I sketched out my plan of campaign from the lookout, and in an hour or so I had got within about a mile of where I had seen the beasts. I knew they were a bull and a cow, so I started tearing the shoulder-blade up and down a dry spruce and grunting ferociously.

I kept moving on, walking slowly and heavily, grunting and working the bone, when I heard a noise to my left, and a youngish bull appeared from behind a clump of spruce. I held the rifle and bone together, over my head, to resemble the horns of a moose. Moose are short-sighted, and this one was no exception. He gave a grunt and came on. When he got near I dropped the bone and lifted the rifle, which made him swerve and hesitate a little, and I let him have it in the cheek.

He dropped, and I remembered the cow and Esias's instructions. I gave another grunt, and saw the head and neck of the cow emerge from beyond a hillock. She seemed suspicious, so I hastily sent her to join her late lord and master.

She was a fat, barren cow, as good meat as can be found in any part of the world, in my opinion.

I spent a good four hours skinning and gralloching the bull and part of the cow. I left my shirt as a flag over the hillock, and started off light at heart and thoroughly pleased with myself.

I got back to find that Esias had seen a yearling bull but had been unable to get a shot. Yearlings, quite naturally, avoid angry old bulls, and dare not approach the cows for fear of them. We packed the two moose down to the river, and went off hunting again, hoping for sign of the caribou.

I went up to the old look-out, but, look as I would, could see no moose. I lit my pipe and contemplated the lovely scenery, lighting a tiny fire of dry poplar to keep my back warm.

The creek bed was dry, so I knew. But moose must have water, and where should they get it? Not from the Yukon. No moose would climb that rocky bank, and why should there be so many trails and signs round this branch of the creek in particular? I had followed the creek to its head, a dry spring.

As I pondered over this problem, I noticed something funny about a hill just beyond where I had killed the two moose. The base and sides of the hill were sparsely covered by the scraggly spruce, like the rest of the country. But towards the top it got thicker and thicker, and the summit was covered with tall, thick trees, close growing and green. Why should there be water on the top of that hill? I determined to go and find out, for water meant moose.

Before long I was breasting the slope of the hill, penetrating thicker and ever-thickening timber. I found a moose trail and walked along it, noticing that it was continually joined by other moose trails until it became a wide, deep rut in the ground, always leading uphill and showing fresh tracks of many different-sized moose. Finally I pushed my way through the thick undergrowth between big tree-stems into an open space at the top of the hill.

In this space was a lake, the sides of which stood straight up from the water, about forty feet, till they met the ground-level. The lake was shallow round the edges, but seemed to deepen towards the middle.

S.S. "YUKON" AT FORT YUKON

AUTHOR'S CABIN AT NORMAN, DOAK (CENTRE) OUTSIDE

I realized that I had stumbled on to a dead volcano with a water-filled crater, the most perfect moose paradise a hunter could wish for.

The crater was about two hundred yards in diameter and practically circular. All round the bank were deep cuts, going down sideways where the game had gone down to drink, and the muddy bottom of the water was marked all over with the tracks of huge, cloven feet. I made a circuit of the lake and found the ground to be as if a thousand head of cattle were penned in it. A few caribou tracks were also to be seen, and the human-like print of a little black bear going down to drink.

I shot a spruce chicken, ate it, and had a swim. The water was frozen over round the shady edges, but it was a warm day to one who had just finished sweating up the hill. I wondered at the time what would happen if the volcano woke up.

When I left the lake I blazed a trail down from the summit to the creek and started in a round-about direction to camp, wishing to explore further country.

I crossed the top of a ridge, and looked over the next valley, hoping to see some moose or another lake. I sat down on a rock, and was watching a black bear eating berries, when a movement on the opposite face caught my eye. A big bull-caribou was travelling along the opposite hillside at a quick, easy, rather slummocky trot. He was at least half a mile away and travelling, so I knew he 'd be gone in a minute, which he was, for he vanished into the thick brush and never reappeared. I began to feel happy, thinking that this was the forerunner of the herd, and, indeed, I thought right. When I got within a mile of our camp and was wondering whether Esias had got home and cooked supper already, I heard a burst of firing from my left. I looked down and saw Esias standing up, blazing away at a small band of caribou. They split, and a big bull came racing up the hill towards me at a tremendous pace. I crouched down in the nigger-heads, and, as he passed within seventy yards, brought him down with a shoulder shot. I gralloched him and went down to help Esias.

That resourceful aborigine had seen caribou moving between me and the camp, had rushed across to join in the fun, and had just run into this little herd, of which he had killed six, my bull making seven. Then we knew the caribou were really coming, and that night, in our blankets, we heard many horns rasping on dry branches in the forest round us.

In the morning, as I was cooking breakfast, Esias looked up saying, 'Look at those big caribou!' A small band of old bulls were walking slowly towards camp, from the direction of the river.

We crawled towards them through the nigger-heads, till within a couple of hundred yards or so, and killed the four largest bulls.

We worked hard for the next few days, packing all that meat down to the river. But eventually the job was done, and we moved our camp to the bank of the Yukon.

That day came the first fall of snow, and through the flying white we could see the deer come trotting down to the opposite bank, plunge unhesitatingly in, and swim strongly across, head thrown back with back and tail high above the water. We killed what we needed to make up the weight we had to raft down. We would shoot the fat old bulls through the head or neck as they clambered up the beach. It ceased to be a sport, for with the increasing numbers the game no longer seemed to fear us.

All day long, up and down the river as far as the eye could reach, the water was full of bobbing horns, white, shaggy necks, and dark grey backs, the bank was a seething mass of running beasts, coming across on their way south. The army would open out to pass round our camp, closing up again beyond it. We had no tent, but when the first snow came we built ourselves a little tipi of caribou skins, a very warm and comfortable little residence. But the shore ice was breaking off and moving down the river, and we had to be hurrying down ourselves to avoid being frozen in. We built a big raft, to carry our meat, with the small ends together and a deck of dry poles on six-inch bunks to keep the cargo above the splashing water. We tied the boat between the smaller ends, and with Esias pulling at the boat sculls and myself at the big sweep on the raft, we started down the Yukon on a river full of swimming caribou. Before we had gone ten miles there was not a beast in sight. The herd we had struck was evidently an afterthought, for the caribou were gone from Circle after a six weeks' run.

It was thus, on my twentieth birthday, that we left that pleasant little creek. The festivity of the occasion was marred by my falling through the raft, immediately on our reaching mid-river, and remaining in soaked and half-frozen discomfort for the rest of the day. But when I think of that creek now I forget the wet and the cold and the aching muscles. What I remember is the wonderful expanse of spruce-covered hills and breasting the slopes of unknown ridges to look into unknown valleys beyond. I think of that undefinable spirit of wildness which lives only in the stunted forests of the Arctic and which gets into a man's blood and holds him. I remember how sweet the fresh meat tasted cut from the beast newly killed and still warm, how the great moose crashed through the forest, and how the caribou came across in such thousands.

LOST IN THE FLATS

October 1920.

It was early October in the Yukon Flats. Our little camp on Halfway Island was one of necessity, not choice, for we had been frozen in on our way down river to Fort Yukon. The ice had gathered round the big raft, and now held it motionless against the bank. We piled our load of meat high off the ground, and began to think out ways and means.

'Ice funny thing,' said Esias. 'May be jam down river. Jam he break then this ice go. We break raf' out, go down all right, hein ? '

Esias is a Kutcha Indian, and as such his words are worth hearing when they refer to doings on the Yukon Flats. And yet, to illustrate how bewildering these same flats are, I tell this story, showing how they may befog one of the best hunters of the Kutcha-Kutchin, People of the Flats.

We decided to wait another day, and, if the ice had not cleared, to start down the bank with our packs on our backs.

With twenty-four hours to spare, what would two energetic folk do, in early October on the Yukon, but go moose-hunting ? We did not really want the meat ourselves, but we knew that Curly, the mail carrier, would be glad of it, for his cabin was on Halfway Island.

We were in summer clothes and it was beginning to be quite cold, so we were full of energy as we started off in the early morning on our moose-hunt. We walked about four miles until we were clear of the thick timber that lines the bank of the Yukon. We reached the more open ground, park-like country, half lake and half small spruce, through which a man may creep on to an unsuspecting moose, or stand in timber calling him across the open.

The lakes, hundreds and thousands of them, unnamed and unknown, lay frozen and snow-covered as we walked across them and round about, looking for moose tracks and keeping our eyes open. It was too late to call them with the shoulder bone and the voice, so we just kept on going, watching the signs of old tracks and places where the moose had smashed willows and young trees with their horns in the preceding month, but we saw no fresh track and no beast.

The sun went down and the snow began to fall in big flakes, cold and depressing.

'We bes' go back,' said Esias. 'No good now.'

'I hope you know where we are,' I said, 'because I certainly don't.'

The sun was invisible, and though we knew that the river lay south, we had no compass, and the growth of tree branches is uniform in a country where the sun is up all night in summer and down all day in winter.

'Tha 's all right!' said Esias; 'when we lef' camp, wind she blow right cheek; now we go back make it blow lef' cheek.'

We must have been about seven miles from the river when we started home. After walking at least ten miles on our way back, we began to get slightly disconcerted, seeing no sign of the high timber.

It was pitch dark, and we could go no further. We had a small kettle with us, in which we had made tea at midday, but that welcome herb was now consumed. We made a fire with the little axe Esias carried, and brushed down a space to sleep on, but we spent most of that night crouching over the fire for warmth.

Next morning was as cold and unpromising as ever. The snow was forming a thick blanket on the ground, and we could see no sun to give us a bearing. There was not so much as a prairie chicken in sight, and though we wished hard for an old moose to walk up to our camp, we might just as well have wished for a ready-made caribou coat to come down with the snow.

A big, white-headed eagle came and settled on a tree close at hand, and I shot it, so we did not go hungry long. But eagle and snow-water is not an ideal fare.

We could have done with a couple of gallons or so of beer to act as chaser to a bottle apiece of Demerara rum. Also we could have eaten ' feathered fowls as the sand of the sea.'

I felt at the time that it was a gross injustice that a party of Semitic vagrants should have been fed on quails, which they got by merely yelping for it, while a British subject and a Kutcha Indian were compelled to subsist on a tough, stringy, rank old eagle.

We started off that day to make another shot for the river, but the wind had dropped and we walked in what we thought was a straight line until Esias stopped and pointed down with a wry face. There were our own tracks, nearly covered by the falling snow.

We made camp then and there and decided to wait it out. We ate the remains of the eagle, very poor pickings they were, and waited over our fire.

Next day the snow ceased falling ; in the afternoon the sun was up and shining cheerfully, and we tramped back about fifteen or twenty miles to Halfway Island. The wind had changed while we were out the first day and given us the wrong direction.

When we got to our camp we found Curly there with his wife and family. He had a big tent with the fire roaring up the stove-pipe, and had just finished frying a whole heap of steaks. We ate them while he cooked some more, and, after drying our clothes out, turned in and slept comfortably in our blankets till the morrow, when we left with our packs to walk down the bank to Fort Yukon.

FORT YUKON, EASTERN HALF
INDIAN VILLAGE FROM HOSPITAL, FORT YUKON

WINTER TRAVEL ON THE PORCUPINE

Shute Creek, February 5, 1921.

We are camping in the last timber below the Divide of the Rockies. A hurricane is blowing in the mountains which it is impossible to face with the thermometer at fifty degrees below zero. We 've been travelling just a month now from the Yukon. Generally speaking, we have had a very favourable time, and nearly half our journey to Fort Norman is done. The last fortnight has been very cold; well below −60° F. a lot of the time. We ran into an overflow above the Bluefish Glacier, and had the devil of a job drying our stuff. I froze two toes on the Driftwood portage and three fingers in a wind by Salmon River. These have been our only troubles to speak of.

Every night we found good camping places, and by day we had good going on the smooth ice. Except in the Howling Dog Rocks we have had no very bad wind to bother us. If the Mackenzie is the king of northern rivers and the Yukon is queen, then the Porcupine is the beautiful princess. She is a wonderful river, meandering along between cut mud banks, through the wilderness of lakes and high spruce that is named the Yukon Flats. After travelling fifty miles upstream we came into the hills again, between high, wooded banks and endless little draws down which creeks come tumbling in the summer, but with the winter they become solid cascades of ice, petrified as if by the sight of some frozen Gorgon's head. On each side of the Canada-Alaska boundary high ramparts tower up from the river, steep and jagged, showing red and yellow and brown where the snow cannot find a hold and outlined everywhere by the green spruce. Away from the river and little creeks is more open ground. Mountains all round, game trails everywhere, good camping places, plenty of grub; what more can man want? The dogs are strong and in good condition: so are we.

We have walked five hundred miles and you couldn't drive a nail into the muscles of our legs. Every morning we are up at six, cook a huge breakfast, and travel hard through the twilight day till darkness overtakes us and we have to make camp. After an enormous supper of meat, beans, and rice we sit up, smoking our pipes and exchanging truth and lies till we turn in to our sleeping-bags for another well-earned night's rest. Twenty, thirty, or forty miles a day, according to conditions of snow, wind, and gradiant, we swing along on our snowshoes, glorying in the strength of our legs, swearing at the dogs, and watching the many game and fur trails. The dog-bells make cheerful music, and at every turn of the river something new presents itself to please the eye of a lover of beauty. Where in civilization can life be found to compare with winter travel up the Porcupine? Better food, maybe, but not the appetite. As good scenery, but always some trace of the presence of man. One must travel far and wide to find a more perfect home of nature than this, for the country still belongs to the moose, the caribou, and the wolves that hunt them.

The moose stand among the timber watching us and listening to the dog-bells. The caribou are sometimes so overwhelmed with curiosity by the sound that they follow us, the ice on their heels going clickety-click-click. Without bells on the dogs one seldom sees game.

It is pleasant to sit here in camp, taking a day's rest, with nothing to do but cut firewood, smoke and eat. Harry has just come in from the creek with three ptarmigan and a snowshoe rabbit. His face is frozen down one side, and he is whistling out of the corner of his mouth. It is blowing terrifically on the Divide and the air is black with the driving snow-dust round the peaks. What rubbish some people do write about the terrible Arctic winter and the long, dismal nights! One gets so used to seeing no sun that one does not miss him, and at night we look up into the perfect starlit sky with the aurora borealis dancing and winnowing across the heavens like a beautiful mad ghost of blue flame, sometimes varied by all colours of the rainbow. Health? What do they know of it who consult the quack cure advertisements in the daily papers? Exercise? 'The flannelled fools at the wicket and the muddied oafs at the goal' know nothing of its meaning.

To-morrow, if the storm drops, we shall have a hard day: thirty miles between timber and timber, hauling, slipping, and scrambling round the ice cap of Shute Mountain to reach the Arctic slope beyond and finish the remaining six hundred miles of our journey. Let us hope it will be as good as this first stage and that the murderous head wind will not spring up and catch us on the summit to add us to the number of its victims.

WINTER TRAVEL ON THE MACKENZIE

MACKENZIE RIVER, March 10, 1921.

WE have covered another five hundred miles since crossing the Divide; but under what different conditions! The first three days from Red River we wandered through the woods looking for a rumoured fish lake and Indian camp. We covered a hundred miles and found the camp on a huge lake, but no fish. We have not had a square meal for a month; neither have our dogs. Food is short, fish is short, there is practically no game. In our total distance we have only seen one moose track in this valley of desolation, and that was fifty miles from the river.

The Mackenzie is from two to six miles wide, till just above the Delta, where it spreads out to twenty-four. The whole expanse of this damnable stream is covered by rough ice, great blue chunks piled topsy-turvy, varying in size from a sugar-box to a small cottage, slippery, hard, and sharp, covered with the deceiving blanket of snow which partly conceals the crevices that break our snowshoes, twist our ankles, and lame our dogs. The going along the steep banks is nearly as bad as on the rough ice. The head-line pulls our arms from their sockets, the sled bangs about, continually upsetting, the snowshoe lines bite deep into our feet. The dogs are as weary and sick of the river as ourselves. We have not struck a single really good camping place all the way. We have had to leave our sleds on the ice and crawl from two hundred to four hundred feet up the bank with our stuff, dig a hole in the deep snow to sleep in, and sometimes it would take four hours to collect enough firewood to keep us through the night. Every morning for the last month we have woken up dog-tired, pulled the moccasins on to our bleeding feet, and started off once more over the rough ice and sliding, treacherous banks.

By my diary it is only a month, but it seems hard to realize that we have ever lived anywhere but on the Mackenzie River or had any occupation other than struggling up this trackless lane of discomfort. Every day and all day the river looks the same. Far and far away, the other side shows a bank as uninviting as the one sloping up from our trail; day after day, week after week, we seem to be looking across the twenty miles or so of rough ice to the same point of the next bend, which never seems to be any nearer. The river stretches behind us to infinity and ahead to infinity. To us the earth is flat; all it consists of is the Mackenzie River, and all the people in it are our three selves. There is no food in the world except rancid bacon and hard-wheat flour. Women and laughter are something on another planet, out of our ken, for we are doomed to travel till the end of time up this accursed stream. Every day for the last week we have had a violent head wind, which blisters our faces, freezes our eyelashes together, and helps the river to make life a burden to us.

The quest for wealth lures many men into strange and unpleasant places, but it is leading us on the most dismal trail of all. Long and long ago we were on a lovely river called the Porcupine where game was abundant, the ice was smooth, and winds were kind. We are still a hundred miles from Fort Norman, three days' travel by hard going, but it will probably take us much longer. It seems impossible that the journey should ever end or that one morning I shall wake up under a roof, warm and comfortable.

Some day, I suppose, in the dim future, I shall not pull off my caribou socks in the morning and tear the hair out of them that has clotted in the blood on my feet. In a former existence, æons and ages ago, I used to dance with pretty girls and wear a collar and wash my face. But that is a thing of the remote and impossible past, a nightmare to plague a hungry, tired-out man. This blasted river goes on for ever, to Hell, which is an endless sea of rough ice over which I shall stumble through eternity on dilapidated snowshoes, driving hungry, worn-out husky dogs, knowing that it will never end.

SPRING ON THE OIL-FIELD

'THIS,' said Harry, looking down the bank on to the great river, 'is sanguinary!'

He had expressed it mildly. We had been away from Fort Norman for three weeks already, cutting out the lines on the oil claims which we hoped were to make our fortunes. When the four of us had started we had reckoned it out too optimistically. Thinking that eight days would carry us over the work easily, we found, too late, that it would take us nearly four times that period.

Instead of the perfect going of early spring ice, when the sled slips over the snow and a man can run all day in his shirt-sleeves, we found the river, lower down, in a more advanced stage of melting. Water covered the trail, and we had to haul our sleds over the muddy banks and rough ice along the shore When we had ploughed our way through the deep, soggy snow on to our claims a little way inland, we set to work to cut out the necessary lines through the thick spruce forest and dense willow undergrowth that covers those unholy flats.

We cut out our six miles of 'line' and thought our troubles were over till we found another line within a quarter of a mile of it. This showed that we had barged on to some one else's claim. Examination of his posts proved that the owner was Morrow, the Imperial Oil Company's employé. Then our wrath was great, for, though legally in the right, Morrow, who professed friendship for us, had known exactly where we were going to stake and had sneaked in ahead of us. Only the lucky chance of finding his line saved our whole labour of six months from being rendered valueless.

By the time we had made the best of a bad job and cut another four miles of line, we were feeling pretty despondent. We had been wet through ever since the first day out, we were on very short rations indeed, and we had to get home to Fort Norman, though how this was to be accomplished was the problem.

Eventually, after many days' weary plodding, we had reached the river. Fred and I had ploughed along in front while Harry and Jim drove the dogs behind. As Fred and I had to cut the trail as we went along and at every step sank down to the bottom of the snow, the progress was very slow indeed.

The wet snow clung to our now rotten snowshoes, and every time we lifted a foot it seemed to weigh a ton. Sometimes we covered as little as a mile in five hours. Fred had rheumatism in the legs, and to enable him to travel at all I had to give him my waterproof mukluks. Jim and I had porous moccasins and suffered much from our feet. We would stop occasionally and build a little fire to warm them, but before we had left it half an hour they would be numb and painful again.

Under these most unsatisfactory conditions we finally arrived at the bank of the Mackenzie River, soaked, chilled, and pessimistic, foodless and tobaccoless, to see the river in worse condition than we had imagined it would be in our moments of greatest depression.

TRADER'S SCOW, PORCUPINE RIVER, NEAR BELL RIVER
HOSPITAL AT FORT YUKON
YUKON STEAMER PUSHING BARGE

The ice had not broken up altogether, but big open 'leads' showed all over the place, the rotten 'candle' ice breaking off in great chunks, floating about and crashing into each other. The ice was white and grey and black in patches, insecure and treacherous.

'We 've got to get to Norman or starve to death,' said Harry. 'And we 've got to get across pretty damn' quick; that ice will break up any time in the punk shape it 's in.'

So to work we went to get across the six miles of rotten ice and open leads.

First we took all the raw-hide off our sleds and snow-shoes, cut it up small, and put it on to boil for food. Then Harry and Fred went to work hewing out poles for the canoe we should have to build. Jim and I collected green willows for the ribs, bow, and stern, and a small pailful of spruce gum, from the tree-trunks, to make her water-tight.

We hadn't been working very long before a most unearthly yell rent the atmosphere from the direction in which Harry was chopping. It was repeated, a joyful note without doubt. Joy at such a juncture could only mean two things: a ready-made canoe or food.

We ran up. 'A cache!' shouted Harry, 'a cache of meat! I could smell it from where I was workin'! It stinks like Hell! It 's rotten,' he added as an afterthought.

We got the meat down from the cache, and it was indeed rotten. But beggars can't be choosers, and one mustn't look a gift meat-cache in the aroma. There was enough for two meals. We ate half of it, when it was boiled, and gave the raw-hide and babiche we had cooked to our dogs. There was also a little tobacco. Satisfaction reigned temporarily in the camp.

By evening the boat was finished and we started. Every necessary thing was done up in a bundle, and every other thing we left to its fate.

Harry went first, as the smallest man, with a long pole, to test the ice. He could not swim a stroke, but he went confidently across that six miles of rotten, creaking ice, leaping from black spot to black spot as if it was a game and the white mush in between was not waiting ready to engulf him.

When he did fall, though, he fell across the pole and pulled himself up again. Jim and Fred, carrying the canoe, walked next, while I, as the heaviest of the party, followed in their tracks with the bundle, which consisted of four blankets, an empty camera, two kettles, the axe, and the little rotten meat we had left. I fell through the ice three times, but I carried the pack loose on my shoulder and dropped it to scramble out. At every open lead we would paddle across, two by two, and once as Jim and I were standing ready to board her, the whole chunk of ice gave way beneath us and we were struggling in the water.

It was May, the month of the bird migration on the Mackenzie, and from the river there arose a roar of their voices which could be heard miles inland. Every patch of open water was white and black with the big white wavies, or snow geese, the swans, Canada geese, laughing geese, cranes, ducks, loons, and mergansers, while the air above was dusty with flying bodies, and against the dark green of the far-away banks the white specks rose and fell and moved along in clouds. But we had no gun, and this exhibition of winged abundance of food made our mouths water in vain.

Our nine dogs were running loose. They were having a bad time, for dogs cannot choose good ice from bad, and continually they fell through the rotten, white, ‘ candled ’ stuff and had to struggle out again. Most of them were completely exhausted, and when we finally reached the farther bank and built our fire we could see moving specks crawling along over the ice, falling through, taking longer each time to scramble out, losing ground to the current in the open leads.

We knew it was hopeless to try to help them, for had they seen us coming back they would all have stopped still and waited.

First Ezoo[1] came to land, Harry's crooked-nosed little leader, the best worker and the ugliest dog in the North. He looked less perky than usual. Then Ring and Duffy, great big dogs, who had followed him. Then Tchsidtse, my leader, arrived, weary and half-drowned. Finally none were left on the ice except Jim's Blackie and old Bear. Both were small dogs, hard workers, and they had started each day worn out for the last fortnight. Bear was the Old Man's leader, and the Old Man was not with us at the time.

‘ By God,’ said Harry, ‘ I can't go back and tell him I was chewing up meat while Bear was drowning ! ’

‘ No more me,’ said Jim ; ‘ I ain't going to watch that there Blackie drown, neither ! That 's as good a little dog as I ever had ! ’

He boarded the canoe, paddled across the lead, and started back over the grinding ice. Soon we saw him staggering towards us, a limp body under each arm, in peril of his life. Twice he went through, dogs and all, but each time he scrambled out somehow, pulled out the dogs and came on, choosing each footstep carefully. He reached the water, paddled the two half-dead creatures across one at a time, and resumed his place by the fire.

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[1] Ugly (Takudh).

'Attaboy, Jim!' said Harry, and the incident closed.

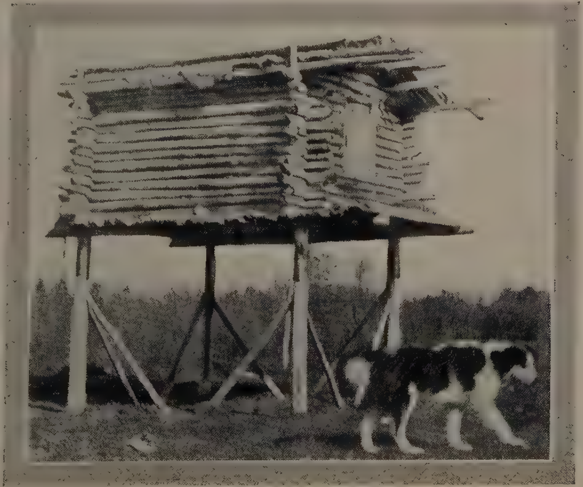
Harry took the last little bit of meat from his mouth, threw it to old Bear, and we all lay down to sleep.

Next day we trudged painfully along the bank. The snow lay about in patches, sometimes waist deep, and where the snow was gone it had left a slimy, slippery, clinging mud, lying along the high, steep bank. Under about a foot of this pernicious stuff our moccasins slipped about on the hard ice which the thaw had not reached. That night we slept like logs, and in the morning made a little cache and left every single thing we had in it except the axe. It was better to have no blanket at night than to be cumbered with one in the daytime. Every little way we would come to a deep, narrow gully, a roaring torrent of snow-water rushing down it. We would have to fell a tree across, and in this insecure way reach the other side, sometimes getting a long fall and a good ducking.

In the evening of the second day we reached a small river, now widened and swollen into a roaring torrent. We tried to wade it higher up, but it had been frozen solid, and the water was running, two feet deep, over smooth ice. Wading was an impossibility, as Jim and I found to our cost, and we had to spend the rest of the day building a raft of big

SUMMER CAMP ON MACKENZIE

SPRING CAMP



A TYPICAL CACHE

LOON CREEK, MACKENZIE RIVER, SHOWING SNOWSHOES AND BIRCH TOBOGGAN logs and poling ourselves up against the strong riffle at the mouth.

Once across, Jim and Fred went on ahead and Harry and I followed more slowly, for, being the eldest and the youngest, the lack of food affected us more than it did the other two. Jim and Fred had the axe with them and promised to have camp made when we came up. When darkness came on we had seen no sign of them, so we made shift to build a fire and lay down as much brush as I could cut with a sheath-knife. Driftwood was scarce, and we could not fell any dry trees, so our camp was cold and uncomfortable. We were soaking wet and could not warm ourselves much with our measly little fire.

Every time we got to sleep an attack of cramp woke us up and started us violently rubbing the afflicted limbs.

We started at daylight, very sleepy and weary, and Jim and Fred came up with us. They had camped up in the bush, thinking their fire would be visible from the bank, which it was not. They had had a comfortable sleep, but had let the fire run over the axe and burn the handle off.

'Well,' said Harry, 'Mike and I haven't had a wink of sleep all night, so when the sun warms up a bit we 're going to have one. You two axe-burners get on to Norman and watch for our smoke when we get to Bear River.'

When the sun did warm the atmosphere a bit, Harry and I lay down and had a good sleep. We were woken up by a noise like heavy thunder, and, sitting up, we saw the whole Mackenzie River moving downstream, ice and all. The huge chunks were flying about, smashing each other, and the ice was piled up to within a few feet of where we were sleeping, a hundred feet or so up the bank. That terrific spectacle is like chaos must have been at the beginning of time. It is indescribable.

'H'mph,' said Harry, 'this raises a new problem to our cerebral machinery. We can't walk along the bank now. We 'll have to take to the bush.'

So take to the bush we did, keeping our direction by compass, some two miles from the river to avoid the steep canyons. The dogs, knowing that there was no food, gave us no trouble at all, but just followed on or ran in front. Ezoo, Ring, and Tchsidtse spent their time mouse and rabbit hunting, and Ezoo caught so many rabbits that he regained his normal good condition. If the bank was bad, the bush was worse, for it was covered by a dense undergrowth of willows. Never were such willows! The dry ones tore our clothes and scratched our faces and hands, the green ones flew back and hit us in the face. Every step had to be accompanied by both hands parting the bushes. For the most part we could not see twenty yards ahead, and without our compass we should certainly have got lost.

In this way we came to a big creek, flooded deep and wide over the banks. How to cross it was a problem, for, search as we would, we could find nothing to enable us to raft it. We had no axe, and the willow tops sticking out of the water made swimming impossible. Anyway, Harry was a non-swimmer.

'We 'll have to go down to the mouth,' he said, 'and cross on the ice jam.'

But when we got there the jam was heaving and swaying and creaking like a rheumatic old lady in a rage. To have attempted to cross would have been certain death. We looked very blank. The creek at the mouth was both wide and deep, but everywhere were the willow tops except at the most uninviting whirlpool under the ice jam. But Harry was a man of resource, as a man must be who has spent thirty-five years in the North.

'See that log over t'other side?' he said. 'If you could get across and ride back on that we could both get over.'

'Maybe I can wade it,' I said. 'I'm longest, and I can swim.'

I took off my clothes, put my overalls and moccasins on again, and stood shivering on the bank. Never has a bath seemed less attractive to me than that one did! I took three steps forward and found myself at the bottom of ten feet of water. Swimming was impossible, so I climbed out. The log scheme was a failure.

'We must get across some damned how or other,' said Harry. 'They won't be able to get boats down for two weeks. By that time we'll be dead as Pontius Pilate. Look at those great chunks of ice floating under the jam. Couldn't we get across from one to the other?'

With my knife I managed to whittle down two young poplars, trimmed them smooth, and laid them from the shore on to the first chunk of ice, holding them for Harry to cross. The ice was so rotten we dared not jump. He held the poles for me, and so we kept on crossing, from one block of rotten ice to another, until we came to the swirling water under the centre of the ice jam. Here I made a false move, stepped on the edge of the chunk on which we both were and fell into the water. Harry pulled me out, shouting with anxiety, for 'candle' ice is nerve-racking stuff. I had no nerves at all; I was far too frightened.

A little way past the centre of the stream we came to the last block of ice, a big, solid-looking one. The current had drifted all the floating pieces on to one side, and now we came back to water-covered willows. We sounded, and the ten-foot pole never touched bottom.

'This particular form of occupation,' I said, 'makes me sick. What 'll we do, Harry?'

'Paddle,' he replied.

I cut the small ends off the poplar sticks, and by using the butts as paddles we eventually managed to move our drunken support to the farther bank. Our dogs, who had waited on the other side, now swam across between the willow tops without much difficulty.

Then on again through the thick bush till we reached the first slope of ground leading up to the Bear Rock. The willows got thinner, and we kept on till long after dark, when we made as much fire as we could manage, and lay down to another night's cramp.

Bear Rock rises straight up from the edge of the river, to its summit, towering over the surrounding country, and then slopes down gradually to the east to merge itself in the hills of Discovery Range. It is a mighty rock standing in a flattish country. We tried to get round the base of it, but the sheer side of limestone afforded no foothold above the piled ice. We had to go back a little way and climb over the top to get to the other side. We went back and started up, the spruce-trees left behind, the willows dwindling to nothing, on to the hard, sharp rock. I was feeling better now that the willows and boggy ground were left below. The higher we got the farther I could see, and the better I felt.

The dogs had gone round by a longer way. We left them to work the road out for themselves, as we knew the rock was not so steep farther east.

Eventually we reached the top, not more than a

A SPRING ENCAMPMENT

hundred feet or so from the actual summit. I went up to it and sat down to drink in the marvellous view. North and south stretched the great Mackenzie, roaring down with its load of ice. To the north it ran between the Discovery and the Wolverine Mountains, through the flats of the oil-field, under the Carcajou Rock, and into the limitless beyond. From the south it came out between the mountains, from Great Slave Lake, fed by unknown rivers and creeks from each side.

To the west I could see over the Wolverine Mountains to the main range of the Rockies, shining white in the sun, a hundred miles away; beyond them the Yukon Valley. I could see the bends of Gravel River winding up towards them, the Carcajou flowing along parallel to the Mackenzie, and all the lakes and creeks I had discovered and mapped during the preceding three months.

To the east the Great Bear River wound its way from the Great Bear Lake, ninety miles away. The Great Lake, like a frozen sea, stretched on out of my ken.

I think that few sensations in the world compare with standing on the top of a mountain, looking down all round on to virgin forest, unmapped lakes, and unharnessed rivers. The wind blows through one's clothes, and one feels simultaneously very big and microscopically small.

But hunger makes the man impatient, so we left that glorious view and started down to where Fort Norman lay, far below us. Our dogs had found their way round and now came up to us, Ezoo looking fat and prosperous with a bellyful of rabbits.

We reached the head of a scree,[1] where had been a big landslide, and proceeded very gingerly to climb down this, half sitting, half on hands and feet.

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[1] Scree: steep bank of loose stones and boulders.

The dogs followed, scrambling about clumsily and rolling stones down on to us. A rock hit Harry in the small of the back, sent him tumbling on to my shoulders, and Harry, myself, dogs, and all were soon rolling down that pernicious slope, gathering momentum, rocks, and bruises all the way down. We covered six hundred feet in about six seconds, crashed through the first willows (very thick they were, too), and came to rest, breathless and half naked, on a more level piece of ground.

'Well,' said Harry, 'I haven't got enough skin left on my carcass to patch a moccasin with.'

Our clothes were mostly hanging as souvenirs on the rocks and willows we had honoured by our passing company.

We started through the willows again, and before long we reached the mouth of Bear River, opposite Norman. There we built a big 'smudge' or smoke fire, made by throwing green brush or rotten wood on to a blaze. From where we sat on the bank we could see the people running about like ants in the distant village. There was open water between us, and very soon Jim appeared with a big canoe and a pocketful of ginger biscuits.

We crossed, hung about by our few remaining rags, emaciated almost beyond recognition, to find a good meal being cooked by Sammy, the cheerful little Esquimau cook in 'Rags' Wilson's store. As we crossed we decided never to do any more travelling in May, or risk a repetition of the sixty miles we had come since crossing the Mackenzie.

SUMMER ON THE MACKENZIE

MACKENZIE DELTA, June 10, 1921.

WE are held up by a gale blowing in from the Arctic Ocean, seventy miles away. We built our boat at Norman, none being obtainable, and it took us a good week sawing up the big spruce logs into lumber. Eventually we launched her over the high pile of shore ice, letting her down with a rope into the water. She is scow-built, twenty-eight feet long, with a four-foot beam and four and a half inches flare. In it are our five selves, five dogs, and the necessary junk, mostly food and canvas.

It is a cheerful, happy life, floating down the big river in the summer. The ice is still piled high on the banks, but it is warm, the willows are leafy, and all the birds that go south in winter are back to their nesting-places in the North. Cranes, swans, wavies, grey geese, laughing geese, divers, and ducks of every known variety have mostly finished their northern migration, except the black ducks and the 'out-o'-luck' ducks. These are still flying down the river in little flights of six to twelve, their curious cry, 'Out-out-out-o'-luck,' provoking sarcastic remarks from hungry persons who know that they are practically uneatable. On every grassy bank the grey Canada geese may be seen waddling ungracefully about, plucking the succulent goose-grass. But a sentinel is always on the look-out, and it is no easy matter to get within gunshot of them.

As we float down, watching the bank slide past, rowing by turn with the rough-handled, home-made oars, all the life that was quiet and unseen in the winter comes out to show itself. An otter may be seen looking from the mouth of a little creek, musk-rats splashing about under the banks, a beaver swimming swiftly down the strong current. Spruce chickens and the now dark-coated snowshoe rabbits are hopping and fussing along the bank. Sometimes a porcupine waddles across a sandbar, looking like a cross between a bear and an old lady's pug-dog. The water is covered with ducks, loons, and gulls, also millions of Arctic terns which fly round the boat uttering their curious buzzing cry. A bear moves restlessly along a rocky ridge, and, more rarely, a sharp eye may see a moose, his horns half grown, watching the boat with his big trumpet ears uplifted, till he wheels round and melts noiselessly into the thick forest.

We always travel by night, when the air is cool and the game is out. At 9 A.M. we pull in, eat a meal of pemmican and doughnuts, and turn in to bask for six hours under our mosquito-bars. Mosquitoes are the one thing that make life unenviable in the summer of the Northland. But it is still early June, and they are not really troublesome yet. In another week, on the big portage, we shall have a bad time with them.

The boat floats down past the places we know, but now under summer conditions. There is Bluefish Creek, where Harry and I were nearly drowned in the spring ice. That is Bear Mountain, whose summit we climbed, empty-stomached and emaciated, on our way back to Norman in May. Here is the bend where we were caught in a blizzard and nearly frozen to death, dogs and all, in February.

We row and smoke and row again and sing songs

OPEN CAMP ON THE MACKENZIE

SUMMER CAMP, MOUTH OF BERRIES R.Y.T.

and talk about oil and women and wealth and food and what a good time we 're all going to have when we get home to Fort Yukon. It is a joyful life, very different from our weary tramp up this same river in the winter.

Now, as I write, the big waves are heaving, the spray flying upstream, and the gale blowing the trees about like rushes. The midnight sun shines red over the tops of the tall willows on Point Separation. The river is twenty-four miles wide here, the other side dimly visible. It seems less like a river than a sea. Ye gods! What a stream! It is impossible to face the gale in our little scow with only nine inches free-board, so we must wait for a calm. An Esquimaux schooner has just come and gone, with four 'Huskies' and Peters, an Englishman. I have no great fancy for Peters, and, as he was very sea-sick, offered him some under-fried 'sow-belly.' The 'Huskies' ate it greasily and with such obvious relish that poor Peters was nearly ill into the fire. 'Very English' Englishmen are out of place on the Delta, or anywhere in the North for that matter.

The gale looks like sinking a bit; maybe we 'll hit the trail again to-morrow. The great crab to a stampede is that as soon as you 've found a nice place you 've got to go on and leave it again. And the Delta is a nice place; great tall spruce and tamarack, straight as masts right down the west side; unlimited fish and fur, the ocean not far off, and the Indians are Takudh Kutchin, the best of all the northern Indians.

But in front of us we 've got an eighty-mile portage over the mountains, and beyond that Bell River, the Porcupine, and the Yukon. And the Yukon is the best country after all.

PACKING OVER THE MOUNTAINS

BELL RIVER, June 21, 1921.

AFTER we left the Delta we had a bad time. Peel River was coming down like a mill-race, and tracking (towing) the boat was impossible, for the banks were perpendicular mud, falling continually, trees and all, into the yellow froth of the current. So we put on two more rowlocks, made two oars, and the four biggest of us toiled and sweated thereat with Harry at the sweep. Only once we stopped for a bite to eat, and I had to go back to rescue Tchsidtse, my dog, who, carried away by the current, had got stuck under an overhanging bank. I nearly got drowned myself, getting him out. We wanted to get to Fort Macpherson as soon as possible, so we pulled right through. The twenty-five miles took us exactly so many hours of muscle-racking work at the oars.

It was pleasant to get into the Fort and see our old friends. We had a good sleep and feed, then set to work making our dog-packs and getting the stuff for our journey over the mountains. There would be a good ten days before we could rely on getting further provisions. Game might be killed on the way, but that wastes precious time and we were in a hurry. We got two Indians to paddle us across Peel River, then we packed our dogs and started off up the trail to the mountains. Each man was carrying about eighty pounds of stuff and each dog about thirty pounds. We had a boat to build, and that takes material.

The first part of the trail was Hell; muddy, slippery, and rough, the nigger-heads up to their accursed tops in snow-water, mud below. The forest was thick and the undergrowth dense; the dogs gave more trouble than can be imagined, falling into holes, getting stuck between willow forks, and lagging behind. We had many creeks to cross, swollen from the melting snow in the mountains. Under these most unsatisfactory conditions we travelled for about five hours. Then we got on to higher ground, the timber thinning out into stunted dwarf spruce and ground willows, and there we camped on the edge of the tundra to sleep through the hottest part of the day. A cool wind kept the mosquitoes hidden.

Starting in the afternoon we travelled all night long over the tundra or Arctic prairie. At this latitude the timber grows only along the river banks.

The tundras are described in the dictionary as 'desolate, frozen marshes.' For winter-time this is a just description, but in the summer nothing more full of life can be imagined. Little birds of every conceivable variety, including humming-birds, are darting and hovering about among the anemones and moss tussocks. Every little lake is covered with loons and ducks and geese. Patches of snow show caribou, bear, and wolverine tracks. Ptarmigan sit stupidly watching us and allow us an easy shot at their heads. The whole plateau is a garden of flowers, pulsing and throbbing with summer life, and the crying of loons follows us everywhere.

But our packs are beginning to weigh very heavy, and some of our dogs are sore-footed and galled by the pack-lines. Three of us have seal and walrus skin mukluks or waterboots, made by the Esquimaux, but the others are less lucky, and moccasins afford little protection from cold water, tanned moose-hide being porous. We camped the second day on a creek-head below the big mountain we had to cross next march. Looking carefully we could see mountain sheep and caribou grazing on the lichen in the mountains. But we were not short of food and could not spare time or energy for hunting them.

We were just below the snow-line and the wind whistling down from the peaks bit through our wet clothes. To make matters worse, a heavy sleet came on, lasting through all our sleeping hours and making us cold and miserable. We could not make much of a fire out of the few dry willows round the creek, for we were well above the timber.

After an unsatisfactory sleep and a good, square meal of ptarmigan and dry meat, we started the first steep climb, which lasted all the rest of the day and all night, sweating profusely and aching about the shoulders.

At last, about six in the morning, we reached the summit, which divides the Yukon Territory from the North-West Territories. Here we threw ourselves down in the moss and gasped for breath, our tongues dry and the sweat running off our chins in a stream. Soon, however, we went on again, and it wasn't two hours before we found a nice little camping place on the west side of the mountain, by a little creek. We caught a dozen or so grayling, or bluefish with a fly and a bit of thread, which gave a welcome addition to our morning supper.

The next march was over another mountain. The

INDIAN SHACK ON PEEL RIVER

SPRING ENCAMPMENT IN THE HILLS

first had been mossy, partly covered and banked with snow, but this was covered by frost-bitten slide-rock, piled about, sharp and treacherous. By the time we had scrambled to the top we hadn't a whole sole to our feet between us. Moccasins and mukluks make poor protection against sharp sandstone. Once over the top we kept along the highest slope, climbing over ridges of bare rock and ploughing through hollows filled with deep snow.

The wind was very cold, but that is a blessing to packers, who want to sit down and cool off quickly. How good tobacco tasted, between our frothy lips, during those short halts! Most of that night we spent climbing the mountain and scrambling along the face, but in the morning we rounded a big shoulder and dropped down from the sharp rocks and snow to the tundra again, and were soon in the thick forest along a creek leading into Bell River.

We were all sorry to leave that mountain. It was pleasant to sit on a rock, your pack behind you, and smoke your pipe in the cold wind. To the north the Rockies merged into the Davidsons, which run west into the Endicotts of Alaska. To the south they continue for ever, throwing out branches to east and west. Game trails and signs are everywhere. Eagles, rock ptarmigan, marmots, and many small birds are to be seen at any moment.

But when we dropped back to the timber line, we had to put our head-nets on again and face the big nigger-heads and the sodden, slushy mud. The mosquitoes are devilish. All the venomous hatred in the world seems to have been concentrated in this stinging, buzzing plague of insects. They cover your head-net in a blinding swarm, they cover an ungloved hand within a few seconds, so that it looks as though it had been plunged in tar. If you lift the net to smoke or eat or get it caught in a branch, they come in by hundreds and make your neck, ears, and face a torment to you. The dogs, poor creatures, are almost blinded by them, though their bodies are protected by the heavy fur.

Our packs were getting lighter with wear, however, and we had not much farther to go.

The next march was entirely through the spruce forest ; a repetition of the first day, only the mosquitoes were worse. When we wished to eat we had to build a smoke fire in a ring round us, so that any gust would envelop us in smoke. Even then the ‘ smudge,’ which is an unpleasant thing in itself, does not keep them entirely away.

Finally, on the fifth march, we reached this place on Bell River. We have a nice little camping ground by a beaver lake. The minute we got here we set to work to build our boat. ‘ Th’ Auld Mon ’ and Fred, as the expert axemen, went to hew out boards of young green spruce for the framework, while Jim and I cut poles for the dunnage, and Harry barked big spruce-trees for the floor and cooked our supper. The framework built, all hands came to stretch the canvas round it and tack it on tight. Harry, as the expert, then painted her all over and she was left to dry. The whole construction took under ten hours.

We are sitting and resting, waiting for the paint to dry on our boat. Lokke, Hester, and Burnell, who joined us at Fort Macpherson, have made another boat, a square-ended concern which I christened the *Flying Pig*, to Burnell's intense indignation.

‘ What will you do ? ’ I asked the company in general, ‘ if you make half a million apiece out of this oil lay-out ? ’

‘ Well,’ said the Old Man, ‘ I wud get me a new rifle an’ a gude shotgun and a new set o’ traps. An’ I ’d build me a fine new cabin, the wan I have noo bein’ a storrm porrch to it. The rest of the money I wud salt, in the bank, for tae educate my children and keep th’ auld wummun when I ’m deid. She is a gude wife ; she has had nine children. Last year ’twas twins, this year tripods, an’ next year I s’poase ’twill be quadrupeds ! ’

‘ Well,’ Harry joined in, ‘ I know what I ’d do. I ’d build a good cabin up at Caribou Bar, I ’d git a good new bunch o’ dogs an’ a power-boat. I ’d buy my fish instead o’ catchin’ it, an’ I ’d take that wife o’ mine outside to have her insides sorted out by some expert skate in the gut-carpentering business. She ’s been unwell now nine years. That ’s what I ’d do, and I ’d send the kid to the best school in the Old Country I could hear about.’

‘ For moi parrt,’ said Burnell, ‘ Oi wud take an’ build a foine new hotel in Dawson, dhrivin’ O’Rourke, bad cess to him, out o’ business. There, in the blissful retoiremint of a back rum, Oi wud enthertain moi frinds with Oirish whiskey, mesilf remainin’ perpethual an’ outragis dhrunk. ’Tis not for quittin’ the counthry Oi wud be afther, me havin’ been seduced and consthrained to remain in gaol most av the toime befure Oi came up Norrth. Whin Oi wuz av tindher age, in County Wexford, moi father, which wuz an ondhertaker, was wishful that Oi shud pershevere, laburious an’ onceasin’, in the consthruckshin av ca-a-fins. Sez Oi ta him, “ Ta Hell wid ye an’ yere bluidy ca-a-fins,” Oi ses, “ ’tis pesthicated an’ premathurely ould Oi am gettin' from the wurrkin' iverlastin', for nothin', on these same containers av cyarkisses!" Wid that Oi lift County Wexford, an' by devious an' onsatisfacthory routes came up ta the Klondike, which same Oi foind good.'

'Dunno wot Hi 'd do,' said Hester. 'Hi might go ter Lunnon, like a bloomin' dook an' see me folkses, wot keep a pub Bermondsey wye. Hi 'd drive aroun' the bloomin' town in a top 'at an' a hortermobeel, an' smoke cigars, an' be tight as a bloomin' lord orl dye long. But afore long I reckon I 'd be back ter Mayo Lake, lookin' fer a fat moose.'

'What 'd you do, Andrew?' I said.

Big Andrew was an Indian from Peel River who had come across the portage to help the Old Man pack his load. But the Old Man had ended by packing more than Andrew and his dog put together. He is a very fine Indian, of the old type. He scorns to trap or work for wages, and does nothing but hunt meat. All winter long he is out on his big, willow snowshoes, six feet long, the same length as himself. He thinks nothing of covering fifty miles a day, and the moose he follows will never escape. He always has a small crowd of hangers-on whom he allows to do the camp work for their keep.

I put the question again in his own language. He thought deeply for a minute and then answered:

'If I had so many dollars that they never ended I should go on living the same life as I always lead, hunting in the mountains. But I would see to it that no old people went hungry on Peel River and that every little child had a good caribou parkee and good moccasins. I would buy all the fur from the Indians for more than the traders give, so as not to allow them to be robbed of their winter's catch by the tale of falling prices. And I would have a schooner full of beads and silk and coloured horse-hair sent in from outside for my wife and daughter. But I don't think that much money is good for a man. The more the traders get the greedier they become. I would spend mine, if I had it, on looking after all the old people and little children who have lost their parents. Myself I would stay in the mountains, which are the only place for a man who is still young and strong.'

A WINTRY AUGUST

1922.

Friendships are founded on little things. If I had not missed the boat at McMurray I should not have sat talking to a prospector from the Clearwater and mentioned the name of Dave McRae as an acquaintance on the Mackenzie River the year before.

‘Dave McRae!’ said the man. ‘Why, he ’s here now; bin carryin’ mail all winter.’

I went round to a little cabin and found Dave reading a magazine in a haze of mosquitoes and dogs. We talked of the Yukon, and I told him that I was going round to the Mayo silver-mines by way of Norman and the Porcupine. That afternoon I met him coming out of the little bank clasping a roll of ‘greenbacks.’

‘I ’m going back to the Yukon,’ he said, ‘ ’tis your talk of it has made me home-sick for the Klondike Valley.’

‘Why don’t you come round with me, then?’ I asked. ‘It won’t take much longer, and it ’s better than wearing out the seat of your pants on a steamboat.’

‘I will,’ said Dave after a minute’s thought.

The only boat down the Athabasca at that time was an old craft, condemned for passenger service, so Dave and I signed on as deck-hands. With the rest of the crew we spent most of our time playing ‘nickelante’ in the disintegrating saloon. At Fort Smith we bought a forest-ranger's canoe, a home-made, heavy, flat-gunwaled contraption which we were forced to buy for lack of any other. We repainted it with Government red paint, patched the holes in the bottom, and hoped for the best. She was an unattractive-looking canoe, and I christened her the *Hoor o' Babylon*, after McPhee.

I built a sail for the *Hoor*, and the rest of the summer was spent travelling down the long length of the Mackenzie, prospecting in the hills to the east with no great results, nosing round the oil-fields and cementing our friendship.

It was an awful summer! On most days it blew a gale, generally accompanied by heavy rain, but the *Hoor o' Babylon* stood up to the rough weather and rode the big waves like a gull, so we rechristened her the *Queen o' Babylon*, and finally sold her at Fort Macpherson at twenty dollars' profit. We lay over for four days at Macpherson, waiting for the storm to lift, and put in our time 'beaver boarding' the house of our host, a huge Yorkshireman, who afterwards refused to accept payment for our outfit. He was a genial soul, and those four days were a continual round of 'josh.' If all traders were like Gifford the Northland would be a better place to live in.

We started across the mountains with over a hundred pounds apiece on our backs. Dave had mukluks, but I had been unable to get any big enough for my 'out-size beetle-crushers' and was forced to wear moose-hide moccasins. I had broken my pelvis in four places a few months previously, and the heavy pack gave me great pain, so on the second night I threw away all my superfluous 'junk,' my Stetson hat, spare clothing, books, and bedding. Dave also threw away any of his stuff that he thought he could manage without.

The tundras were deep in rain and snow-water, and on the third day a violent gale blew in our faces from the mountains, making progress more difficult. We had materials for building a canvas scow and enough food to last us (we thought) to Old Crow River on the Porcupine.

We climbed the first mountains in the face of a hurricane, and on the fourth day the rain and fog came down and blotted out the landscape. The sun was now invisible, and though we tried to keep a straight westerly line, we climbed round a big mountain and found ourselves marching east. It was too late to descend to timber, so we were compelled to spend a cheerless, fireless night in a cairn. My footgear was rapidly wearing out, and I had cut up the tops of the worst to patch the soles of the better moccasins. When we finally climbed down a steep, precipitous gully, we had a day's sunshine to cheer us up, and found that we had hit on the genuine hunter's paradise: moose, caribou, sheep, and bear all within a mile of each other. But we did not think we needed to hunt for meat, so we left the game in peace, only shooting an occasional ptarmigan for our next meal. In one pool of the creek we saw two very big bluefish, and Dave tried to catch them with a fly. The bluefish wouldn't look at it, for some reason, but neatly removed a sliver of bacon from my hook. We wanted them badly, so after some more fruitless fishings, Dave waded into the creek and drove them to the shallows, where I shot them.

That night we had an ideal camping place in one of those patches of tall, straight timber which are

ANDY, A CHANDALAR BOY

DAVE McRAE, KENO HILL,
JANUARY, 1923

EZIAS

found on many of the little mountain streams. We squatted before a huge fire and talked till far into the night. Dave was an entertaining talker ; he had been brought up on a Lowland farm, crossed to Quebec with the Garrison Artillery, and remained in Canada. He had mostly been a lumberjack and hard-rock miner in British Columbia and the Yukon, but as the nights wore on he would generally work the conversation back to his home in Scotland, telling yarn after yarn with the dry humour so typical of the Scot and so incomprehensible to the Sassenach. Upon such as he are empires built.

That night, as we lay rolled up in the boat-canvas, we were wakened by heavy rain, and after a cheerless breakfast set out through the thick forest towards Bell River. The flood of rain changed presently to wet snow, and we tramped on, cold and depressed, to the Sinclair Rock, where we meant to build our boat. It snowed all day and most of the night, turning to rain in the early hours. I woke up to find Dave cursing like a bargee, and became aware that the canvas, in which we were both rolled, had become a bath and that we were lying in several inches of water. We climbed out and made a wretched fire of rotten stumps. A meagre breakfast, and we started off to hew out timbers for the scow.

It snowed all day, but we got the frame built before night, stuck the canvas up as a shelter, and stretched it round the frame next morning. But it was still snowing and the wet canvas froze stiff through the cold night, nor were we able to paint it next day. By this time we were on very short rations, one plain-flour pancake and half a slice of ' sow-belly ' between us per day. We had no bedding, our clothes were in rags, and my moccasins were worn completely away.

In all we waited five days on that miserable bank for enough sunlight to enable us to paint our boat. Every day I took my rifle and went in search of moose, but cold, hunger, and my lack of footgear made it hard to negotiate the two feet of snow; I never got a moose till we left. At nights it went down to zero, and we were compelled to stand over the fire for warmth. Once I went to sleep standing up, fell forwards into the fire, and burned my clothes badly.

It took us four hours every night to collect enough wood to burn through the three hours' darkness. I generally managed to sleep for an hour or two each night, but Dave never slept at all. Yet he never complained and never failed to do more than his share of the work. During that time we killed one rabbit and one musk-rat. If we could have spared the ammunition we should have eaten whisky-jacks.

On the sixth day, however, the sun came out and dried up the soaked canvas of the scow, so I painted her (with a brush made of the musk-rat skin) from the heavy pot of paint which I had cursed all the way from Peel River. Imagine our despair when the paint only covered half the bottom! But Dave had a cake of soap in his pack and scraped it into a pot in as dusty a form as he could. We collected spruce-resin, boiled the mixture in water, and applied this pernicious brew to the rest of the scow.

'I wonder will it float?' said Dave; ''tis a drunken craft to look at, an' I am thinkin' she will sink on us!'

I was the designer of that scow, so felt it was up to me to defend her from malignity.

'She will not!' I said. 'Do you remember how we vilified the *Hoor o' Babylon* till we ran the Sans Sault Rapids in her in that gale ? '

' She might,' said Dave ambiguously, and we began to carry our creation down to the bank. She was very heavy and we were afraid to handle her roughly ; we had been compelled to lash her beams with track line as the nails would not hold in the frozen timbers. We had built her a hundred yards from the bank, and half a dozen times I had to call a halt to rest.

' Damn it, Mike ! ' said Dave, ' I thocht ye was a strong man ! '

' I might be with something in my belly and on my feet ! ' I said. But Dave McRae's belly was just as empty as mine and he was additionally hampered by lack of sleep ; I had met a better man in this little, bow-legged Lowlander.

We launched the scow and she floated—floated like a water-lily—and we started down the long, cold river to the Porcupine, Old Crow Village, food, warmth, and comfort.

' God's curse on such a life as this ! ' I said. ' Why can't a man be content when he 's got grub and blankets ? But no ! He must be butting round some dung-heap of the world like this, starving and freezing ! I 'm going to start a hen-ranch on Vancouver Island and live easy for the rest of my life ! '

' I 'm with you there ! ' said Dave, and we began to lay plans for the hen-ranch, as we pulled on the rough-handled sculls, keeping up a steady five knots down the swollen stream to where plenty awaited below.

* * * * * *

A week later, after a heavy supper, we sat in Bill Mason's cabin at the Howling Dog Canyon.

‘ An’ that guy croaked,’ Bill Mason was saying, ‘ he croaked and left this letter. He says his instruments were small and inaccurate, but I know that country well enough to figure he must have been more to the west. The richest prospect since the Klondike ! I ’m goin’ up there next summer and every year till I find it. I wish you two boys ’d come with me ! We ’re not the same after we pass the half-century mark, lad, and we ’d make a good combination. It ’s a hard country, though ; got to dig up willows from under the drifts to make a fire ! ’

‘ By golly, Bill, that sounds fine ! ’ we said.

‘ What about the hen-ranch now, Mike ? ’ laughed Dave McRae.

‘ Damn the hen-ranch ! ’

THE YUKON MAIL

November 1922.

To those who live their lives along the Yukon, the farthest frontier of civilization, the visits of the mail are the only regular events of importance.

The mail joins friends far apart, reminds one of another world beyond the spruce forests and the mountains, and sometimes brings in travellers, who may be strangers or old friends, but always are carriers of news, the most welcome luxury in Alaska.

The Yukon River rises in the St. Elias Mountain and flows northward for 600 miles, through the wonderful sub-Arctic forests, past Dawson City, famous for the great Klondike Rush of 1898. From Dawson to Fort Yukon, the northernmost point of its course, is a stretch of 350 miles, and from Fort Yukon it flows south-west through the lower ramparts and the vast, desolate tundras at its lower end, 1500 miles to the Bering Sea.

The whole length of this great natural highway is approximately 2500 miles.

In the summer the flat-bottomed stern-wheeled steamboats rush rapidly down or plough painfully up the swirling yellow stream, arriving at any hour of the day or night at intervals of a week or so. In the perpetual daylight of the short summer, the whole population crowd to the bank, white men, Indians, and dogs, and remain there, gossiping and staring, saying 'Hello!' and 'Good-bye' during the irregular number of hours the boat stays before she backs down the slough and turns into the main channel on her farther journey. The ship's cook, having saved up all the scraps since the last stopping-place, flings them on to the muddy gravel bank and starts a grand dog-fight. Owners of such dogs as are getting worsted now rush in with clubs and stones, and the cook retires to safety at the back of the galley.

Through the long, silent winter, the river runs unseen below three or four feet of ice, and the steamboats hibernate on the banks in Whitehorse, Dawson, or Tanana. But the mail must still go regularly, and the only animal suitable for the work is brought into action: the dog.

Travelling with a dog-team is necessarily very slow and tedious. To cover the long distances in the Northland, a man must take his bed, food, etc., all of which make weight. To haul this he must use dogs, and their food then takes first place among the impedimenta. There are good dogs and bad dogs, good drivers and bad drivers, but as a general rule, in the forest regions, the man walks behind his sled and will not average more than twenty-five miles a day over a long trip.

A dog is a devilish beast to drive unless he likes the driver and is also in a good temper. Cleverer than a woman, more obstinate than a mule, he causes more trouble and exasperation to an impatient or ignorant driver than can be imagined. But when your dogs love you as dogs should, they will slave to the point of collapse without a murmur or a minute's slackness. But the man must do his share of work. If he does not, the dogs know it, and then, woe betide him!

On the upper Yukon, between Dawson and Whitehorse, the valley is dotted with road-houses at regular intervals along the well-kept horse-trail. Running up the Nordenskӧld from Carmacks on their beaten trail, the four-horse teams never have to make more than twenty-seven miles between one good stable and another.

But below Dawson the river sweeps down to the north-west, across the Alaska boundary, into the wilderness of the middle Yukon, to the Indian village of Fort Yukon, just north of the Arctic circle. Along the great North Bend there are no horses nor heavy wagon-sleds, the only trails are those cut through the rough portages by the mail-carrier for the long, lean dog-sled he drives up and down the river all the winter.

Between Dawson and Circle the river runs between high, jagged ramparts, and as the terrible winds roar down the canyon they sweep the glare ice clean, and bank the rough ice high.

Below Circle the river spreads out through the Yukon Flats into the many channels that are such a labyrinth even to those who know them best. This stretch is generally acknowledged to be the most dangerous in the Yukon Valley, for all through the winter the river, shallow in most parts of these flats, freezes right down to the bottom and overflows from above. To walk into these wet patches is dangerous in the intense cold.

On November 3, 1922, Harry Anthony and I left Fort Yukon to take the three hundred pounds of mail up the eighty miles of river to Circle. I had not intended to go myself, but Harry, being the regular mail-carrier that year, was compelled to leave on that particular date and no one else would go with him because of the bad condition of the ice.

The freeze-up had been late and the last three weeks abnormally mild, so that the ice was very thin, and the river open in many places along the channel.

We had six dogs and a twelve-foot basket-sled, which had been built of strips of hickory wood by Walter Harper, the half-breed boy who assisted the late Archdeacon Stuck in the Arctic travels of his latter years.[1]

In our team were three old dogs and three young pups, foolish and wild as pups should be. Ezoo,[2] the old leader who took Harry's toboggan across the Rockies to Norman in the winter of 1920-21, was again on the lead, but behind him was a great thirty-six-inch pup, wild and impulsive as a young stallion, who would sometimes make off in his own direction, dragging the reluctant and outraged little Ezoo behind him in the undignified attitude of tail-end first. It was because these pups would need continual attention from behind to restrain their exuberance and that one man must go in front to test the ice, that two of us were travelling with the mail on its first trip.

We pulled out at seven o'clock in the morning, and Ezoo, knowing that at last we were going on a real

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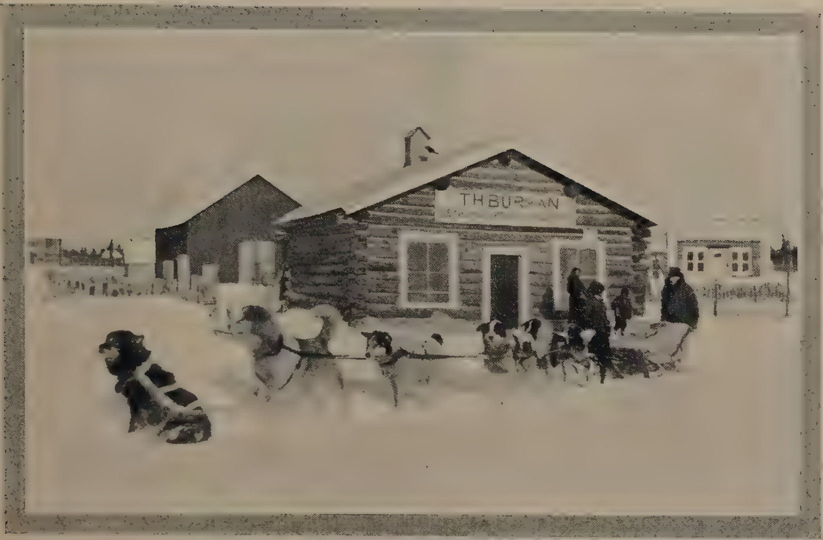
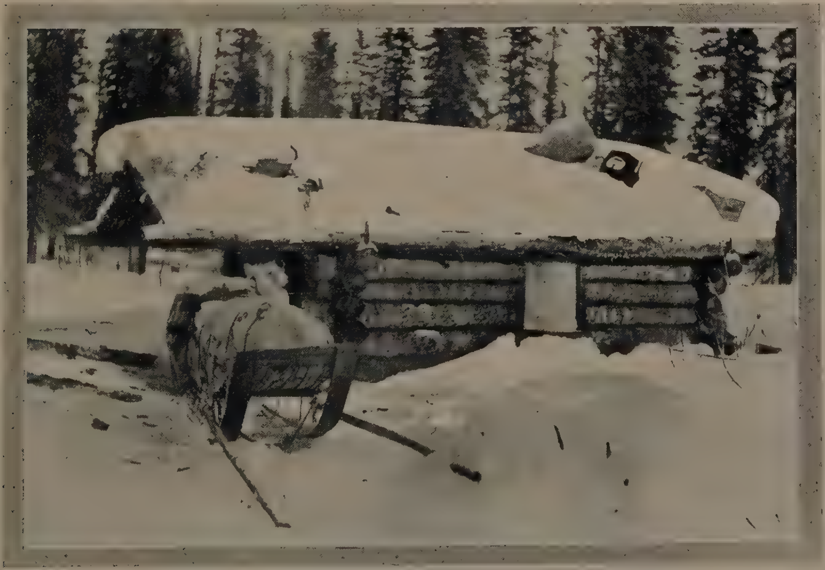
[1] Including their distinguished ascent of Mount McKinley, the highest mountain on the continent. This same sled was used by him on his voyage round the Arctic coast of Alaska.—*A Winter Circuit of our Arctic Coast*, Rev. Hudson Stuck (Archdeacon of the Yukon). Walter was drowned four years ago and the Archdeacon died at Fort Yukon the following year.

[2] Ugly (Takudh).



MAIL LEAVING FORT YUKON



TWENTY-MILE MAIL CABIN, YUKON CIRCLE ROUTE

journey, instead of fooling round the village, which he hates, stuck his ugly little head forward and made the sled cover the first eight miles in under an hour. The big dogs behind him romped along with their tails up, not one of them but could have dragged the whole sled single-handed in that warm weather.[1] There was an Indian toboggan trail on the long slough,[2] past Jenny Island up to the eight-mile point, where it ended.

Here we had some difficulty, as the open channel had cut in close to the high cut bank, and we had to run along a precarious ribbon of thin ice, about five feet wide, between the bank and the deep water. Netsun,[3] the wild puppy running second, knowing nothing of ice or water, tried to get to the edge for a drink and very nearly dragged the whole team, sled and all, into the river.

Finally we came to so narrow a place that we could get no farther along the ice, and were forced to lift the heavy sled up the ten-foot mud bank and cut our way through the thick scrub of willows and fallen cottonwood trees. The many cottonwoods on the Yukon Flats are ornamental enough in summer, but in winter they look rather dismal, their leafless limbs standing out like frozen skeletons.

We got back to the ice after about an hour spent in chopping two hundred yards of trail, disentangling the crazy pups from the willow stems, and heaving the big sled over the windfalls. Here we found thin patches of ice and Harry went in front with a long stick and a light axe to test it, while I put all my energy into restraining the dogs from running over him and knocking him down. Netsun and Natto[1] would rush forward like fresh horses, utterly disregarding my cries of 'Whoa!' defeating my attempts to hold the sled with the steel-shod brake behind, for the steel got no grip on the glare ice. Our progress was difficult and slow, for after carefully testing the ice, Harry would generally give the verdict 'Punk!' and we would have to make a long detour. When night came on we were only seventeen miles out of Fort Yukon. The cold was increasing with the darkness, so we pulled the sled over a tangled pile of drift logs with much difficulty and bad language, and built our camp on the bank.

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[1] In colder weather the snow becomes gritty and less slippery.

[2] Any side channel is a 'slough.'

[3] 'Scamp.'

We scraped the snow away, threw down spruce boughs to lie on, and built a wind-break of spruce at the back and sides. The dogs were chained to tree-trunks round the camp, and when we had cooked and eaten under-fried steaks of caribou meat and the various tit-bits put in by the women at Fort Yukon, we lit our pipes and yarned far into the night, about old times, old friends, dogs, laughs, and unpleasantnesses. We had not been on the winter trail together for two years; since that time I had been in Turkey and most of the Balkan States; Harry had stayed on the Yukon. But it seemed to me, sitting in front of the fire with him, the fierce glare scorching our faces and hands, the cold chilling our backs, that it was only a hallucination that I had ever left the Arctic and the life of the dog-driving fraternity.

At the end of a long, sound sleep I awoke to find Harry relighting the fire for breakfast. Dawn was only beginning to show dimly in the east, and it was still dark when our meal was finished. As we were washing the dishes, and packing up, we heard the long-drawn lonesome howl of a she-wolf, evidently wondering at our fire.

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[1] 'Active and supple.'

There is a little empty log-cabin twenty miles out from Fort Yukon. We had brought enough dry salmon to feed the dogs on the return trip, and, to lighten our load, we intended to cache a night's feed in this cabin. The old trail was overgrown by the thick undergrowth on the bank, and I waited on the ice with the sled while Harry hunted for the cabin and hung the fish, by a string from the ridge-pole, out of the reach of marauding squirrels and small carnivora.

I was sitting on the sled filling my pipe, when again, just across the main channel, came a howl from the she-wolf we had heard that morning. But this time I recognized the excited note of the hunting call. It was answered almost immediately by the deep bass roar of the big dog-wolf, the double note, cut short at the end of each ' Oooow ! Oooow ! '

I forgot my pipe, and, looking across the river in the now fully dawned daylight, I saw the two great beasts cantering leisurely through the shallow snow on the bank of a willow island.

What puzzled me immensely at the time was what they were hunting. The moose keep back from the river at this season and wait till the ice is sound enough to bear their great bodies. There are no caribou in the flats. These wolves must be travelling, and yet here they were, uttering their hunting cry. They would not cry for a rabbit.

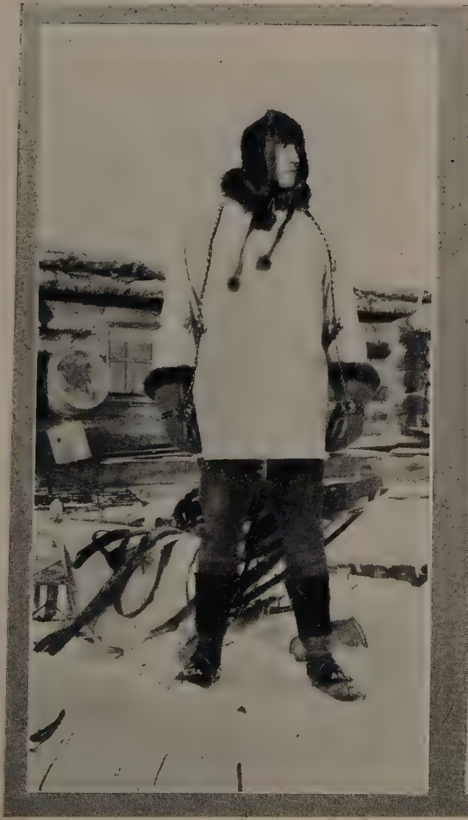
As I wondered at this, the wolves turned and started across the ice straight in my direction. Then I knew ! They were hunting our dogs !

Ezoo, on my halting him, had begun yapping futilely at Harry to hurry up and come back. Sandy, a yellow cross-breed, was barking joyfully and idiotically to be allowed to go on. Between them and the bubbling, bellowing puppies they were making a good row through the stillness of the frozen flats, and the wolves were following in hope of a breakfast of hot dog.

I knew that they would not attack me; I never believe any of the many stories of men being attacked and killed or treed by packs of wolves. But I much wanted to see how close they would approach before they became aware of my presence.

The dogs were watching the spot where Harry had disappeared and did not see the wolves as they advanced leisurely but determinedly across the rough ice of the channel, skirting a thin patch, and approached at a trot that looked slow but was really eating the ground up beneath them at a very fair rate indeed.

The wind was blowing downstream, and as I sat motionless watching, they stopped about four hundred yards out and looked intently at us. They were probably wondering at me, sitting like a statue on the sled. Wolves, like most mammals, are short-sighted and find it hard to recognize any immobile object. They altered their direct course and started for a point down-wind of me, where I reckoned they would get my scent at about two hundred and fifty yards' range. I wished I had a rifle, but as we knew we should see no moose we had not bothered to pack one. The first was a grey wolf-bitch, already into her thick but light winter coat. She was very fat, and she led her companion, an enormous black brute, whose track on subsequent measurement I found to be six inches long, which told me that his length from



ORDINARY DOG-DRIVER'S "GET-UP"

A STRETCH OF SMOOTH ICE

nose to tip of tail would have been a full eight feet and his weight within a few pounds of two hundred.

Wolves are a curse to men in Alaska; they kill dogs, destroy caches, rob traps, and slaughter the game. Therefore, as I looked at them loping easily across the ice, huge, murderous and long-jawed, but beautiful withal as only animals can be, I longed for my rifle to end their wild and wicked but splendid lives with two well-placed shots. But I had no rifle, so merely waited to see how close they would approach.

I have hunted a good deal and seen much game, but I have never lost the thrill of seeing the wild beasts of the world in their natural surroundings. I would get it, to-day, just as assuredly from the humble but beautiful Scottish roebuck as from the white mountain sheep of the Northern Rockies, the finest game animal on the continent, or from the monstrous Alaska brown bear—possibly, with the exceptions of the Cape buffalo and the rhinoceros, the most dangerous brute that walks the earth.

Just as these two wolves were near the scenting range of myself and the dogs, and I was getting intensely excited to know whether or not they would come nearer, Harry came out on to the ice half a mile up and shouted. I felt so annoyed I could have bitten his head off! The wolves turned and cantered back across the ice to the island they had left. Harry had not see them till after shouting, then it was too late; they were gone.

That day we only made eleven miles. We zigzagged about the treacherous river, falling in here and there, building fires and drying our feet and clothing, till, when darkness overtook us, we were cut off from the river by a racing flood of open water. We kept on through the forest along the bank, but as we had to cut our way through the thick brush it was not very long before we made camp.

That night it turned slightly colder. The thermometer, which had been oscillating between zero and 25° F., took a drop to about −25° F. We had to build a fire of cottonwood for lack of better fuel, and our wood pile probably weighed a full ton that was to cook two meals and keep us warm for an hour or two after supper.

The aurora borealis was glinting and dancing above us, and the full moon, which the night before had been hidden behind clouds, now rose up over the river, and, as Harry expressed it, 'threw fresh light on the problem.'

The chief trouble of travel at this time of year is the continual wettings one gets from falling through the thin ice. When a man falls through up to his body he becomes encrusted in a cake of ice, and, apart from the danger of freezing, finds movement very awkward. He must, therefore, build a fire and painstakingly dry out his clothes. His footgear should be changed, as the feet are more apt to freeze than the body.

It is foolish to play tricks with one's feet by running what may seem at the time to be a negligible risk. On one occasion I was travelling with wet feet at a temperature of twenty degrees below zero along a good trail, within a few miles of a mining camp. As long as I kept running I could feel my feet against the iron-like surface of my frozen socks, and, feeling them, I was unafraid for them.

I was not reckoning on delay. But an overflow of the river compelled me to spend half an hour in cutting a trail through the bush. Standing and working only with my body and arms, I froze three toes and both heels. I had to be on the trail in the severest weather for the following three months, and suffered considerable annoyance from my feet, especially the heels, as a result of my carelessness (or laziness) in not having changed my socks.

As we sat before our cottonwood fire on our second night out, we turned our wet socks and moccasins before the blaze and perched them up on withies to roast the ice and moisture off.

Next morning we left the open river and followed a narrow slough that runs behind a succession of islands for about ten miles. This slough was in very bad condition, as the ice had cut out and refrozen insufficiently, and where we crossed the sandbars, our steel runners cut down on to the gravel and made heavy going. A long, wearisome day brought us to Curly Wells's cabin on Halfway Island, at the end of the ten-mile slough. Curly had been mail-carrier for the preceding four years and knew the run as well as any one could, but had left the job to attend to his trap lines. He had not caught much so far, only a lynx, four marten, a few 'weasel' (ermine), and a mink or two.

He is married to an Indian woman, remarkably handsome for a full-blood, and has a family of three, with the great beauty common in half-breed children, and sometimes in adults also.

We spent the night there, and Elizabeth treated us to cookery which could not be surpassed in a Paris restaurant. Happy and tight-bellied, we stretched out on the floor in our fur blankets and slept on the welcome thought that to-morrow was only a ten-mile run and that on the night after we should reach Circle.

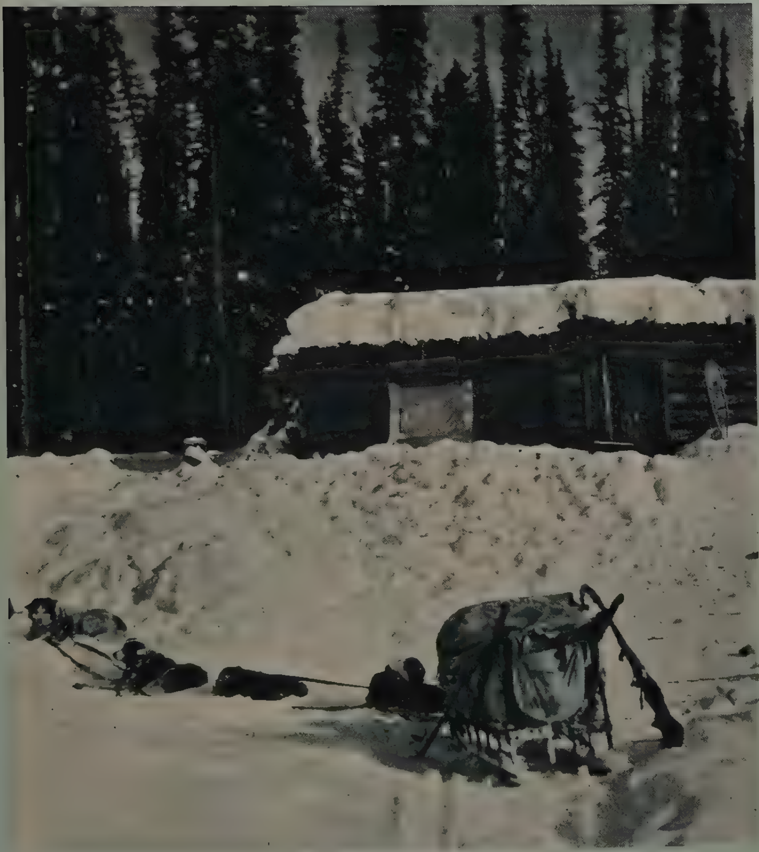
As it happened, that ten miles took us from long before dawn till nearly midnight, and when we reached our objective, a wood-cutter's cabin on the 'Sarah Shute,' we had had as many falls, through the thin ice and on the rough ice, as either of us wanted.

The owner of the cabin, a German named Bohmer, is a big, slow-voiced Teuton, of a type very common among those who work with their hands. Humourless, wearisome in his conversation, of a splendid physique which he has the sense to take a pride in, he is a hard and conscientious worker with his axe, and his thoughts go little beyond his work except in the direction of women, of whom he knows nothing.

He promised to come on with us a few miles next day and show us what he thought was the best way to get round a bad flood that had broken out below Whisky Island. This flood, on investigation, proved to be frozen strong enough to bear the sled and ourselves, so we crossed right over. There was no snow on the new ice, so we travelled at a very fair rate indeed, but Bohmer, who was unaccustomed to running, could not keep up with us and rode on the sled. Harry, being smaller and light built, also perched up on the bow, while I was running with one hand on the handle-bar. Suddenly the whole section of ice gave way under our concentrated weight, and we found ourselves in four feet of water.

We got the sled out with little difficulty and no damage, and the weather was warm enough to give us time to build a good fire and change our clothes in comfort.

Bohmer appeared slightly peeved over this incident, and, true to his race, failed to see any humour in the situation. The thing which helps most to make



THIRTY-MILE CABIN

tolerable some of the damnable ' jackpots ' one gets into in the Arctic, is to look at the funny side, even if the laugh is at one's own expense. On this occasion the funniest thing was Bohmer's rueful countenance as he climbed out of the water, while Harry's language was well worth listening to.

We fried some bacon, and after a cup of tea the ' Deutscher ' retraced his steps, dressed in some of my clothes. Harry and I had a comparatively uneventful run to the mouth of a slough, eight miles from Circle. Here we found a mountainous ice jam through which we had to chop our way.

Driving a heavily loaded Nome sled is a very different matter to navigating the Indian toboggan with its flat bottom and low centre of gravity. The sled is very easily broken in the rough ice, difficult to guide, and when it upsets, as it very frequently does, the whole weight of the load must be lifted clear off the ground to place her on the runners again. Any fool can drive a motor-car, but to drive a basket-sled is a fine art, needing endless patience and a fair amount of bull strength and hardihood.

A practised man can chop a sled-trail through an apparently impassable jam surprisingly quickly.

On crossing the jam in question we found, to our dismay, a thin, treacherous sheet of ice about fifty yards wide, under which, we knew, lay the full depth of the swirling current. As we were thinking we should have to make a five-mile detour, we heard the tinkle of dog-bells behind us, and an ancient Indian caught us up, sitting cross-legged on a little Yukon sled, smoking the pipe of peace. He was an old-time medicine-man, or Shaman, named Joe No. 6, the father of Esias, my hunting partner of former years.

Briefly summarizing the general situation as being ' Kwintloch kwirzyoo ' (very bad indeed), the old man, after pounding the ice, started across it in a roundabout, crooked path. He was very small and light, and his sled was empty, so he crossed without difficulty.

One never sees Indians as old as Joe No. 6 fall through ice ; they know too much. This is not disparaging to Harry Anthony. He had undertaken to carry that definite weight of mail through to Circle, regardless of dangers and difficulties. An Indian would have abandoned the project altogether or would have continued, dryshod, having left the mail languishing on the bank at the first bad place he struck after leaving Fort Yukon.

Old Joe crossed the lightly frozen rapid and cut two poles, which he brought back to us. Harry then crossed, leading Ezoo by the collar exactly on the old Indian's tracks. He moved slowly, and got across in safety. Owing to my unfortunate weight of two hundred pounds I was compelled to cross on the poles. The ice was cracking and creaking under me as I shuffled across with my hands and knees on these dubious supports. I was more frightened than I should have admitted to Old Joe, because the current is very swift at that point, and had I fallen through I should instantly have been drawn under the ice to perish miserably in the dark, cold water.

From that point we crossed a portage of about two miles, along an Indian trapping trail, and emerged on to the mouth of what is called the Anthony Slough, where Harry had a fish camp and an ice-bridge many years ago. This slough, for three miles at the head, was uncovered by ice, as the current had cut it out, so we had to spend weary hours chopping, chopping, chopping through the thick willows.

When we emerged, we saw, across the main channel of the Yukon, the little line of lights from Circle shining their welcome to the mail.

A wonderful sense of joy and peace comes with the glimpse of a light at the end of a long day behind the dogs. A light gives a promise of food, warmth and rest, company and sleep. 'No struggle, to-night, with fires and brush, no shovelling of snow nor endless hunting for dry wood.' By that light there sits a man, and whoever or whatever he is he will come out and say, 'Come right in, boys! I got some tea ready right now, and when your dogs is fixed up I'll have some hash slung fer ye!'

Hungry, weary, and cold, with sore feet and shoulders, the traveller, rejuvenated by these words, takes a swift drink of tea and goes out to attend to his dogs.

Our dogs galloped jauntily down the 'main street' of Circle along the bank to Romaker's road-house, where, after shedding our filthy, frozen garments, we blew our bellies out with every variety of fare in sight and promptly fell asleep.

Next day we started on our return trip to Fort Yukon, with nearly six hundred pounds' weight on the sled. The Anthony Slough was frozen over, and we kept up a good pace till we reached the very mouth and the two-mile portage. I was driving the sled, guiding it by the handle-bars, and Harry was running about fifty yards in rear.

Close to the bank there was a crack and a smash, and the sled and I fell through the shell ice on to the gravel beach about seven feet below, dragging two dogs with us. ‘ Shell ’ ice is formed by the fall of the water-level, leaving the thin ice in the position it froze in. I was not hurt, and the dogs were practically suspended in mid-air, but the sled was considerably damaged. One standard was broken and a runner was knocked crooked. How I managed it I do not know, but with Harry’s help and that of the dogs still on the ice, I managed to extricate the sled and myself from our sub-glacial prison. Harry had the exasperating work of mending the sled with a piece of birch wood and hard, wiry babiche or raw-hide string. As my fingers were cold from the water on my mittens, the only part I could take in the operation was chewing the babiche to soften it. These break-downs on the trail are most annoying. A standard takes about an hour to mend, and this may have to be done, as in Harry’s case, in a strong wind, thermometer −20° F., and with bare fingers.

The rest of that day and the whole of the next were comparatively uneventful, a monotonous series of detours, duckings, and blasphemy. There is an old cabin at the mouth of the ten-mile slough, thirty miles from Fort Yukon. We arrived late at night, shovelled out the muck brought in by lemmings and squirrels, and camped there. Next morning we saw that the whole channel was wide open for ten miles, a hundred yards wide in front of the cabin. On the slough itself was about four feet of overflow water, slightly frozen. We had to press on to Fort Yukon because our only dog-feed left was that at the twenty-mile, where we had seen the two wolves. We tried to get down the slough. The bank was very thickly covered by willows, young spruce and poplar, and to cut our way round would have taken us a week. The

THE THIRTY-MILE SLOUGH

CROSSING THE CHANNEL

weather was very little below freezing, and though the ice on the slough was more than two inches thick, it would not bear us properly. Overflow ice, being frozen slush, is very soft and breakable.

We started off at 6 A.M., and at 2 P.M. we were a mile and a half from our starting-point. In that time I had fallen clean through the ice eleven times, the whole sled had gone through three times, and Harry, being smaller, had gone through once, though that is once too many.

'We can never make it this way,' said Harry, as he knocked pieces of ice off my clothes with the axe. 'In the whole day we 'll not make two miles, we ain't got no dry clothes left, and I vote we beat it back to the thirty-mile cabin.'

It was not cold enough to hurt, so I walked back to the cabin clad in solid armour plate, jointless: a tortoise-like form of locomotion. We did not get back till after dark, and we ate our supper very despondently, wondering how we should get on, as we had no further dog-feed and saw no hope of reaching the twenty-mile cabin.

'I think,' Harry said, 'you 'd better fog it for Fort Yukon through the bush to-morrow. Get a bunch of Indians with axes and a bale of fish and come back to cut me out a trail. I 'll stay here with the dogs and cut as much trail as I can with the little axe.'

'Well, Harry,' I said, 'I think that to-day has undoubtedly been one of the bloodiest I ever spent, and I 'm not hankering for a repetition of it. I 'll do that.'

'The mail will be three days late, at least,' he said, 'but that can't be helped. To Hell with worry anyway! "Worree don't mak' no monee!" as the Frenchman said.'

Next morning Harry woke me up with joyful shouts.

‘ It ’s been cold through the night, Mike, colder ’n Hell ! The channel ’s froze over, and I ’ll go take a slant at it if you ’ll fire up the breakfast.’

He came back a little later saying that he thought it would bear.

‘ Gee ! ’ he said, ‘ but I ’d have given ten bucks to ’ve had the camera on to you yesterday. You sure looked a dandy picture with your horrible dial sticking out of the water and you underneath getting the sled out ! I ’ll bet a Stetson hat to a mouldy spud that your language would ha’ come out on the negative ! ’

After breakfast we started off in considerable trepidation to cross the newly frozen channel. Harry went slowly across first, packing a long, dry pole. Then, standing on the old ice, he called to Ezoo, and the little dog took the team across full split. I think our bulging eyes held that sled up on the ice ! I had cut two dry spruce poles and made a rough pair of skis. I crossed on these safely but with considerable misgivings. We were now on the old ice, and, after the cold night, fairly sure of an uninterrupted run to Fort Yukon.

I ran ahead of the dogs, Harry riding the sled or holding the handle-bars, and we were able to take straight lines from point to point without fear of water. We reached the twenty-mile cabin in about three hours, had some grub, gave the dogs the bundle of fish we had left there, and left for Fort Yukon in hopes of reaching it before dark. But we had trouble with an overflow and more trouble with Natto’s harness, so that when darkness came on we were only at seventeen-mile point.

The night started cold and clear, and every star was showing. Marching north-west by the stars, we kept on a fairly good line, though unable to distinguish the landmarks. We had not got many miles when the clouds came over and hid the stars, leaving us guideless. When we had crossed the rough ice of the channel about four times, Harry shouted forward to me, 'Say, Mike, you ain't no homing pigeon! We should have crossed this channel only once before eight-mile point. I think we 're going the wrong way!'

'Well, you take the lead, and I 'll drive the dogs,' I said. 'I 've no idea where we are, but we can't be far off the right way.'

Harry lighted the 'bug,'[1] and for the next few long, dark hours I was blindly holding the sled up by the bars over the apparently interminable rough ice. In front of me danced the vague shadow of Harry and the dim light thrown before him by the 'bug.'

The dog-team was just a line of moving, dark splotches against the snow, and I could only judge the shape of the ice by the way in which the dogs climbed up or down.

This went on for hours, always at a fairly good walking pace, but at ten o'clock we found ourselves at eight-mile point and on the Indian toboggan trail.

We saw a fresh sled-track, also, and knew that Michael de Michèle had come out to look for us that afternoon. But because of the darkness, we had probably gone nearly twenty miles out of our course over the winding flats. At one point we had struck the north bank, when we should have been several miles south of it.

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[1] Corruption of French *bougie*. A lantern made of a candle in a tin can.

Occasions such as these show up the good dog against the bad or indifferent. Through all that darkness and rough going, our dogs, who had not been fed the previous night and had fed at noon that day, never required one word of encouragement or reproof. I could not see their traces in the dark, yet even Netsun, twelve months old, never once got tangled up during that time, and Ezoo never made a *faux pas*. Dogs like these, working for the love of it and as friends of the driver instead of his slaves, make dog-driving a delight instead of a burdensome grind.

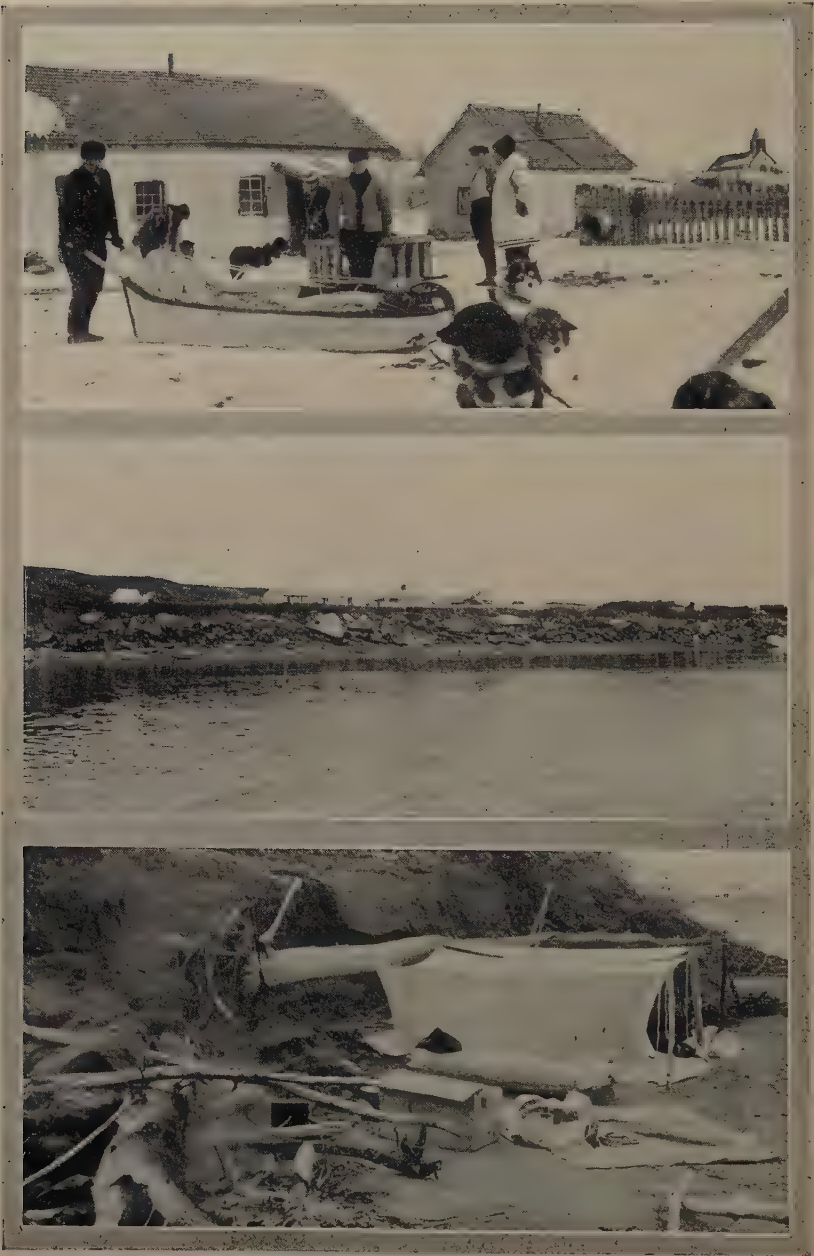
When we got to the trail at eight-mile Harry came behind the sled and let Ezoo follow along it. The dogs all knew they were near home, and travelled at full speed, but gallop as they would they could not slacken Ezoo's traces. Though very small he has an ambling gait which enables him to keep up a good pace for a long time. It was too dark and rough to ride, so we had to run, and as we took only an hour between the eight-mile point and Harry's cabin at Fort Yukon, we were fairly well winded and weary.

'Good God!' we 'd pant to each other every few minutes of the last three miles. 'Fort Yukon has been swallowed by an earthquake, or all the lights are out. We must be nearly at Beaver!'

'This ought to be Petersen's cache, somewhere here. Reckon we 've another mile.'

'Petersen's whiskers! We 've come round again to Whisky Island, below Circle!'

But soon the lights shone out round the willow point, and in five minutes more we were tying the dogs up round the cabin, each to his particular stump with a big hunk of fish. We consumed large quantities of



FORT NORMAN
FORT NORMAN, WITH BLACKENED ICE ON BANK
SUMMER CAMP ON MACKENZIE, SHOWING MOSQUITO NETS

caribou meat, bread and butter and tea, then went round with the mail. Old Short came in and invited us to his road-house for a drink of what he called the 'real dope.'

After the second bottle we saw that he was comfortably settled for the night under the table and went round to an Indians' dance, where we trod the light fantastic till after three o'clock to celebrate the successful journey of the first mail of the long, dark, Arctic winter.

OTHER STORIES

THE MURDER OF CORPORAL DOAK, R.C.M.P.

1922.

In the wildest days of Dawson City a man's life was comparatively safe, whereas in the Alaskan camps, especially at Nome, murder, rape, and theft ran riot through the streets, the officials often being the worst criminals in the town. The good order on the Canadian side is due to the control of the Royal Canadian Mounted Police. They are one of the finest bodies of men in the world, and the best of them all was Corporal Doak. He was rough, tough, and cheery, respected and liked by white men, natives, and dogs: be that his epitaph.

In the newly discovered lands round the Coronation Gulf, Old Captain Klinkenberg and the handful of early pioneers have not impressed the Esquimaux with any notion of the white man's far-reaching power. The Hudson's Bay Company have lately established a trading post at Tree River, on the gulf, and a Roman Catholic priest went out to convert the 'heathen' population.

Now the Huskies are a more fiery and virile race than the Indians. Human life means nothing to them; they are neither afraid to kill nor to die. Although they lend and exchange their wives, they are jealous of an outsider, and they killed this priest without the slightest hesitation. Constable Cornelius was sent out to arrest the murderers. He found no difficulty in detecting them, for they had arrayed themselves in the late cleric's clothes, including his cassock and long robes! He took them by force and marched them out to the Mackenzie River and up to Edmonton for trial. After a whole summer spent in travelling (which they enjoyed), and at the trial (of which they understood nothing), they were taken back to Slave Lake and released, fully convinced that the general result of murder was a pleasant holiday at Government expense.

The following year the Esquimaux started a blood-feud at Tree River, and two brothers, Atungait and Kumagdlak, finished the squabble by summarily slaying the remaining nine members of the opposing family.

Corporal Doak, with two constables, left Fort Norman, to arrest them. Few people knew the natives better than Doak. He had lived among the Indians on Peel River and among the Esquimaux at Herschel Island for many years. In the depth of winter they travelled by dog-sled over the rough ice jams of Bear River, across the treacherous two-hundred-mile expanse of Great Bear Lake, up Dease River, across the Dismal Lakes to the Coppermine River where the Esquimaux get the native copper for their knives and needles. Down this they went, past the Bloody Falls, to the coast of Coronation Gulf, and followed along the bleak shore to the mouth of Tree River where all the trouble had come about.

When Doak arrived he found that a dispute had arisen between the two culprits as to which had acquired most credit in the massacre. A violent quarrel had ended in Atungait being killed by his brother. Doak arrested Kumagdlak and set about to collect evidence concerning all the bloodshed. Kumagdlak, now lying in chains, began to take a less humorous view of the proceedings. For several days Doak was ferreting out evidence, deciding what witnesses to take back, while the other policemen were hunting seal for dog-feed, mending their sleds, and overhauling their outfit generally.

Kumagdlak was very good-tempered, but asked that he should be killed immediately, as he objected to losing his freedom. He was allowed exercise every day and was not prevented from talking to any one. One day, as he walked under guard between the iglus, a boy shot him dead with a rifle. Doak promptly arrested the boy, Qudlarssuk, who was about nineteen and very small.

‘ Why did you kill him ? ’ said he.

‘ Kumagdlak was my uncle,’ the boy replied ; ‘ he asked me to kill him as he did not wish to live without his freedom, so I shot him.’

‘ And lost your own freedom thereby,’ said Doak. ‘ It was bad of you to kill your uncle.’

‘ Why was it bad ? ’ said Qudlarssuk ; ‘ he asked me to shoot him, and I did so.’

Next day he asked Doak what was to happen to him.

‘ I shall take you out to the Mackenzie River,’ he told him. ‘ After that you will be sent a long journey by boat or sled into the warm land where the white men come from. I do not know what will happen to you there. Probably they will release you and allow you to return to your own people ; but they may hang you, for it is against the law of the white man to kill a human being.’

The boy laughed. ‘ What a foolish law ! ’ he said ; ‘ but this is Innuit country. What have we to do with white men's beliefs ? Our Shamans have strong magic. But I do not want to be taken from here. Kill me, Doak, for I, like my uncle, would sooner die than lose my freedom ! '

' I cannot kill you, Qudlarssuk, I would be breaking the law myself if I did so. You must do what I tell you and be patient. In the end I think that you will be released.'

During the next two days Qudlarssuk continually asked Doak to shoot him. Otherwise he gave no trouble and was allowed to move around the cabin with only the leg-irons on.

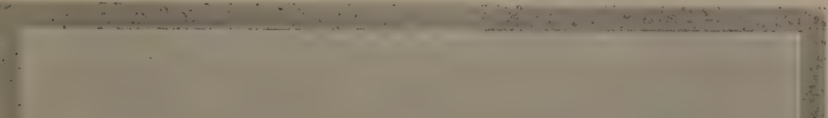
On the fourth day after his arrest he was lying on the floor of the cabin, apparently asleep ; Doak was leaning on a rough bunk in the opposite corner, watching him. The other policemen were out on the ice, hunting seals. Doak was weary, and presently his eyes closed and he began to doze. His rifle and revolver lay at the foot of the bunk. Watching under his long, black lashes, Qudlarssuk saw the policeman's head fall back on to the sealskin pillow. Noiseless as a cat, he crept forward on his stomach till he reached the end of the bunk, then seized the revolver and deliberately shot Doak in the groin. The heavy bullet did its work well : it struck the back of the pelvis, tore its way through the length of the body, glanced off a rib, and came out under the armpit.

Doak jumped up with a grunt, clapped his hand to his side, saw the blood on it and the boy standing, laughing, at the end of the bunk. He reached for the rifle, but fell back.

' You little bastard ! Why d' you shoot me ? ' he cried.

He lived for a few minutes longer, during which he

THREE MILES FROM POINT NOR, BEAR ROCK



ICE BREAKING UP ON THE YUKON

steadily cursed the boy in English. Then the blood choked him and he died, as the toughest man must die if drilled from end to end by a bullet from a ·45.

Qudlarssuk, who had stood grinning at this foul work of his, looked through the seal-gut window and saw, running towards the cabin, the Hudson's Bay factor, the only other white man in the village except the two policemen away on the ice. Seizing the rifle he shot the trader through the head, then coolly smashed the lock of his fetters with a third bullet, and passed out into the gathering twilight.

'I have killed these two white men!' he cried to two other Huskies; 'let us now kill those out on the ice and we shall have rid the land of the white men!'

But the two Esquimaux he spoke to thought otherwise. They had been westwards to the Mackenzie Delta; they knew something of white men and were afraid of more bloodshed. They got one on each side of Qudlarssuk, disarmed him, and held him till the two constables returned from the ice to find the prisoner quite cheerful and thoroughly proud of his performance. But they returned too late, for Doak was dead: killed in his sleep by a child.

In this tragic fashion passed away the best Mounted Policeman and one of the finest men that ever entered the North-West.

KEELER AND WARBURTON

1921.

THE men at Fort Norman told them that they were crazy to try it. No one but a madman would think of crossing from the Mackenzie River to the Yukon at that time of year. Corporal Doak was up the river bringing down logs for the new barracks, else he would have prevented them attempting such an enterprise.

Keeler was a big, strong, boisterous man with the boasting style of speech which, apart from his expressions, showed that he was a Seattleite from Seattle. Warburton was an Englishman, quiet and rather shy, a hunter from the country at the head of Ross River where he lived a hermit's life year after year. He listened quietly while Keeler held forth.

'No, sir!' said the American. 'I reckon you 're wrong. I guess there ain't nothin' to it at all. What man has done, man can do again. You bet'cher!'

'*Mon Dieu*!' said a French-Canadian. 'But you are crazee! Dat rivière she is bad mos' all de tam; now in Apreel she is more worse dan nevaire! You cannot mak' heem dat montagnes in less dan ten day, even w'en trail she 's all right. Now she is mos' nearly all melt away, you nevaire get dere; *vous serez noyés*!'

'I expect we shall be drowned, all right,' said Warburton, 'but after my partner's big talk, I suppose we shall have to go.'

For the first time Keeler looked a trifle uncomfortable. For all his formidable bulk, he was only a trader from a Yukon store, while Warburton was a hunter in the high hills, who had made the wilderness his own by right of conquest. He was the better man, and Keeler knew it.

They started off the following day, their four dogs hauling a small toboggan loaded with dried caribou meat. It was the 27th of April, and the snow was melting along the open banks, leaving wet mud. Water was running over the river-ice, while even under the thick growth of spruce and willow the snow was sinking and getting mushy.

They had no water-boots to help them travel over the wet ice, so they had to drive their sled through the woods, one man behind, guiding it, the other in front hacking a trail through the dense willows, their feet numb with cold from the wet and the slow going. They had three hundred miles to go and enough food to last them three weeks on small rations. In two weeks they faced starvation, for they had not got a hundred miles up the Gravel River.

‘ There ’s only one thing to do now,’ said Warburton. ‘ We ’ve enough dry meat to last us on to the Divide if we leave the sled and turn the dogs loose. We can pack Jerry and Pilot with some of the meat, and carry the rest with the guns, axes, and blankets. We must leave every other damn’ thing behind, except the tea-kettle.’

Warburton never abused his partner or referred to his having been the cause of all this trouble, which made Keeler alternately penitent and sulky. They planned to go up the Twitya branch of the Gravel to the Divide of the Rockies and there to hunt caribou and mountain sheep. They would make a skin boat, float down the Hess River to the Stewart, and keep on till they reached Mayo Landing. They plodded on, day after day, up the muddy, slippery bank, their starving dogs crawling behind. They killed the poorest dog and the others ate him. The two dogs with the packs were failing rapidly, so three days later Keeler killed the other one.

They were making very slow time. Every creek was a foaming torrent, and to cross it they had to fell a tree and pass over on that, carrying the dog-packs as well as their own loads; the dogs swam across as best they could. They could only cross the wider streams by building small rafts, and had kept a length of rope for this purpose. The snow was still deep under the trees though melted away where the sun could strike it. When the ice broke up on the Gravel River they had not even reached the fork of the Twitya.

A large tributary from the north held them up for a long while. They could find no good logs for a raft, and the ice from the river was jammed into the mouth of the creek. After walking some distance up this and finding no crossing possible, Warburton started to climb across the heaving, swaying ice jam. He picked his footsteps carefully and got half-way across without much trouble, but there he found a more difficult place. A big chasm yawned in the jam. Warburton could not step across this, and dared not jump, but he wormed his way round till he was holding the opposite side of the hole with his hands. Suddenly something gave and his feet slipped down. He held on with his finger nails for a few seconds, but the rotten ice tore away; with a horrible cry he dropped from sight and the ice closed over him.

Keeler stood still, staring with bulging eyes at the place where his partner had disappeared. Death had, he knew, been hanging over them, but it had never occurred to him how near it might be to himself till he had seen Warburton die so dreadfully. Trembling, he sat down on the ground, and it was ten minutes before he could think connectedly.

So the old Frenchman at Fort Norman had been right, after all. Warburton was drowned, as the old man had said! Warburton was dead through his, Keeler's, fault! But the old Frenchman had spoken to him, himself; he had said they would both be drowned; there was still time—My God!

So ran his thoughts till he got up and shook himself, then feverishly hunted for wood to make a raft. He found one dry log that would float the outfit. Putting that in place, he swam across, towing it, and then built a fire to dry himself.

It suddenly occurred to him that he must think for himself. Warburton was dead, down there under the ice, and it was he who had done all the thinking and acting, leaving Keeler to take the credit and do the talking. Now he must think for himself and act for himself, with no one to stand by and say, 'Well done,' no one to sorrow when he died, as he would surely die.

In Pilot's pack was some tobacco and cartridges of Warburton's. He left these in the next camp he made, and on the following day he reached the branch called the Twitya, which means 'rapid water.' Warburton had spoken of an Indian camp up the other branch. He thought he would go there and get help if he could find it. He built a small raft and paddled across the swift current towards the rocky bank of the farther shore. The raft was swept a mile down the stream before the other shore was reached, and Keeler saw it drifting on to a sharp rock which cleft the current at its swiftest point. He struggled frantically, but the stream was too much for him; the end of the raft struck the rock with a crash. Keeler fell on his face and luckily the raft held together, but Jerry fell overboard, his pack on his back, and sank down into the dark water. Keeler got ashore not far below.

'Oh, my God!' he thought. 'Jerry's gone! Spot and Faro are gone; Warburton's gone. Now Jerry's gone, too, drowned by his pack! Warburton would have unpacked him to cross the river. But Warburton is dead and I was too damned lazy! Too damned lazy—too damned lazy—too damned lazy!'

But no amount of regret could bring back Jerry. He was drowned, and fifteen pounds of dried meat lost with him.

There was little game in that valley. Keeler saw one moose track and wasted a day hunting him, returning to the river with a scraggy rabbit as his prize. He ate it and gave some food to Pilot. Starvation now stared him in the face. He was no hunter, as Warburton had been. If he could not find the Indians he would be lucky to come out alive. He knew that he could not float down Gravel River and return to Norman on a raft—the river was too rapid, Warburton had said so. He found himself acting on everything that he thought Warburton would have done.

He plodded on for two more days, and on the third night found signs of an Indian encampment. The frames of skin tipis were standing on the bank; refuse was lying about, but the Indians were gone. He found one thing, however, which gave him joy: a small cache of dry sheep-meat. He had some money in an oilskin packet, so he took twenty pounds of meat, left ten dollars, and started across country to the Twitya River.

The snow was now entirely melted, and the ground was soaked through to the frost under the moss. Keeler's moccasins had rotted away long before, and he had improvised soles of birch bark. Had Warburton been with him, he would have reached the Twitya in three days, but he took a bad line and it was a week before he saw the stream in front of him.

The mosquitoes had begun to get vicious, and he had no net. His cold feet gave him continual pain, his clothes were torn off by the dry willows, and the only garment remaining to him was a moose-hide shirt that had been Warburton's. He tied that round him like a loin-cloth, and the mosquitoes enjoyed the rest of his body as a feeding ground. Every evening he would fall down, completely exhausted, and lie like a log before the fire, till the mosquitoes drove him to his feet and desperation hurried him on. He had thrown his blanket away some days before to relieve himself of the weight. Warburton would have kept it and made clothing from it.

Keeler never felt so helpless as now. He had bluffed his way through life, with his size and his bold talk. Now he was up against grim realities, and, in a show-down, a bob-tailed flush is worth nothing. He had about ten pounds of meat left when he had got half-way up the Twitya. He looked it over, taking it from the dog-pack, then fell asleep from utter weariness, and, while he slept, Pilot ate it all. On waking and discovering the loss, Keeler was so exasperated that he seized his axe and split the poor beast's skull.

He had nothing, nothing at all ; no food, no clothes, no dog, no bedding, no hope. From now on he must live on the very few rabbits and ptarmigan he would get a chance to shoot with his heavy rifle. Unless the mosquitoes killed him first (they were getting worse all the time), he might get to the mountains on this fare, helped out by the few last-year's berries now thawed and rotting in the damp moss.

A week later, a party of Indian hunters from Lansing Creek made their way on to the Divide in pursuit of mountain sheep. The spruce were far below, and looking down the hillside to the east, they saw a ghastly, two-legged Thing making its way towards them through the dwarf willows. It was covered with blood from crown to soles, and, except for one filthy rag round the loins, it was naked. Swaying in its walk, it uttered awful inarticulate groans from between its swollen lips. The face was like no man the Indians had ever seen.

' It is a devil of the woods ! ' cried one, and at that they turned and ran, nor did they stop till they reached their canoes, and paddled downstream as fast as they could.

Keeler fell forward and lay motionless. He was blind in both eyes, his face and body were swollen out of all proportion by the frightful winged pests. He could not speak for the stings in his throat, and he was raving, stark, staring mad. As he lay there, a buzzing cloud settled on him and enveloped him in blackness, and there he died, killed by the summer guardians of the Arctic wilderness, the little singing devils of the moss.

RUNNING ICE

BELL RIVER, LOOKING EAST TO McDOUGALL PASS

A MINING CAMP PRIZE-FIGHT

Half a dozen men, newly washed and shaven, were carousing in the house of 'Mukluk Maud,' a typical harpy of the mining camps. Fifty cents a drink is a stiff price for inferior whisky, but they paid it, *faute de mieux*.

The door opened and a man with a youngish face and thick, white hair entered, called for a drink, and sat down.

'Say, boys,' he said, 'there 's a new guy landed up on us!'

'Zazzo?' said another. 'What kind of a looking skate is he?'

'Reckon he 's a goer from Hell,' said the old man. 'I seen him a-comin' up that there hill ahead o' the ore team. He 's sure husky! Ab Lawry says he seen him down at the Landing; says he made half the town drunk, beat up a dozen, and packed the hull darned works of 'em home!'

'The Hell you say! Could he trim Big Olaf?'

'Surest thing ye know! He 'd eat him alive!'

'That 's where ye 're plumb wrong, Dan,' said another man. 'I ain't seen yer White Hope, but I 'll put ten bucks ter yer five that Olaf cleans up on that gink o' yourn inside three minutes.'

'Done with you!' said Dan. 'Let 's have a snifter on it and then go take a slant at him. This round 's on me. Set 'em up, Maud!'

They all trooped out and crossed the hard snow of the street to where a light burned in a little cabin. Big Olaf Jensen was mending a greasy coat by the light of a guttering candle.

‘ Vat iss all de crowd about ? ’ he asked, as the men pushed in.

‘ Old Dan here,’ announced one of them, ‘ reckons as you ’ll be scared of a guy that landed in camp to-day. He figures that when you clap yer star-likes on that gook you ’ll turn around and beat it so fast you ’ll only hit the hill-tops ! ’

Olaf turned on the old man with a threatening growl.

‘ Vat you say——’ he began.

‘ No, no ! ’ interposed Dan hastily. ‘ I never said nothing like that at all ! We got a bet on.’

‘ Vot iss der bet ? ’ asked Olaf.

They told him what they knew, and the whole party went over to the road-house and walked in.

The stranger, having eaten, was peeling off his moccasins and hanging them over the stove.

‘ Hello ! ’ he said briefly, as the men entered and sat round.

‘ Come up from the Landing ? ’ asked one.

‘ Sure.’

‘ ’Jer know many down there ? ’

‘ Two or three. More ’n that know me.’

‘ What ’s yer moniker ? ’

‘ They call me the Skookum Kid. What ’s yours ? ’

‘ Dan Mackintyre. Pleased to meet ye.’

The Kid stood up to shake hands, and Olaf saw that he was within ten pounds of his own weight.

‘ Big Olaf, here,’ went on the old man, ‘ figures that you ’re a guy that ’s fired up a rep. beating up drunks.’

‘ Then Big Olaf is a damned liar.’

‘ Who you vas call damn’ liar ? Yust vait till I fix you, you son-of-a-b——’

The stranger’s open hand rang against Olaf’s face ; the older man’s return hit empty air.

‘ Shake yer rags, Swede ! ’ said the Skookum Kid. ‘ Let me get some dry moccasins on and we ’ll get busy.’

The other men stood back as they squared up.

The Swede held his right low, thinking only of the dreadful upper-cut he would deal ; his left was guarding the mark and his head was bent. The Kid was balanced evenly on his toes, his right guarding high, his left well forward. The Swede moved towards him on flat feet and suddenly swung his right, but the Kid ducked under it, jabbed him twice in the ribs, and jumped clear, only getting a glancing blow on the shoulder from the Swede’s left.

‘ He can go some, you bet’cher ! ’ cried Old Dan.

‘ Wait till Olaf lands him one ! ’ said the man who had backed the Swede.

In another half-minute the Swede was bleeding at the mouth and nose, and the Kid was breathing hard. He was puzzled and rather concerned. This Swede was a stronger man than he ; he seemed to be made of iron, for the Kid had sent home blows like kicks from a horse, and the Swede only showed a little blood. He tried to duck under Olaf’s left, but the right caught him above the ear, knocking him head over heels on to the floor, where he landed with his head in a spittoon. He got up quickly and dodged the Swede, who was trying to catch him as he lay, and the next thirty seconds were spent in the Kid dodging away from the ‘ haymakers ’ that wasted themselves on empty air.

Olaf was getting winded now, and only thought to follow up his advantage with a crushing blow which would keep his younger adversary quiet for several minutes. His blows grew wilder, and as he dropped his guard, he got the hardest bang in the jaw that he had ever had in his life. He landed on his face with a crash, and his backer bent over him to make sure he was not dead.

By the time Olaf came round the Kid had washed himself up and lit a pipe. The Swede grinned at him pleasantly, and they shook hands.

'I vos not call you bad name only dey vos say I vos scare,' he said.

'That 's all right, forget it!' said the Kid. 'They tell me it was a bet.'

'Well, boys,' wheezed Old Dan, who had shouted himself hoarse, 'they 're on me this time. Come right along, Kid, and get one under yer belt.'

They went round to Mukluk Maud's 'joint,' and very soon Dan's money had been poured down the assembled throats. The Kid offered to stand a round, but the big Swede interposed.

'No! Py Cosh! You von't, dis time. It 's up to me for being beat.'

'Dave Tolmie 'll sure get het up when he gets wind of it,' Old Dan said. 'I 'll bet a dollar to a doughnut he 'll never sleep a wink till he 's got the Kid, here, lying up in hospital at the Landing!'

'Who is this President of the local Benevolence Institution?' the Kid asked.

'He 's a miner, working on a claim over to Bloody Gulch. He 's the toughest guy we got around here. Holy Mackinaw! That guy could git run over by a street car and then git up and lick five red-headed policemen named O'Rourke. He 's got 'em all faded a right pert while back.'

Just then the door was flung open, and a man stood framed in the opening. He was of medium height and disproportionately broad, with a short neck and arms. His face was of the dark Highland type, but his eyes were very light grey. He fixed these on the Skookum Kid.

'Are you the guy beat up Olaf?' he asked.

'Sure.'

'I guess you know who I am!'

'If God knows no more about yer than I do, you 're lost!' said the Kid.

Dave Tolmie laughed.

'My name 's Tolmie,' he said. 'Reckon I was throwing a bit o' chest, then.'

'I was hearing about you,' said the Skookum Kid, 'but I didn't believe the bull they slung me!'

'What was it?'

'They was tryin' ter kid me into thinking you 'd got me faded!'

'Like to try it out, boy?'

'You bet'cher. But say, Tolmie, I 've a hunch we c'd do better 'n just sluggin' each other in a bum joint like this here'n. I got a hunch! I seen a big store 'longside the road-house; we 'll nail that and fix up a ring. Then we 'll give out about the prize contest, soak 'em a buck all round to lamp it, and the winner grabs the spondulicks. What d'ye say?'

'You said it, Kid! Gee, but that 's a dandy scheme! I got one kick to register, though; that "winner takes all" ain't no good. I 'm goin' to knock Hell out o' you, boy. We 'll make it winner takes two-thirds. I 'll get some gloves off Cap

McKay; Lanner 'll be tickled stiff to lend us the store; it 'll boost his line o' dope some.'

In two days it was all fixed up. Dave Tolmie and the Skookum Kid, now the firmest of friends, had erected a ring and deputed a teetotaller named Hawkins to be treasurer of the committee.

Lanner was timekeeper, and old Cap McKay was referee. Dan Mackintyre and Big Olaf were seconding the Kid, while his two mining partners acted for Dave. There were over three hundred miners crowded into the storeroom, all shouting at once and offering bets on the contest. The odds were 4 to 1 on Tolmie. They had all seen him fight before, and the Kid's only backers were his seconds and Ab Lawry, who had seen him down at the Landing.

'Now then, boys!' shouted old Cap McKay. 'Cut out yer hollerin' and give a guy a chanc't! The contest to-night is between Dave Tolmie, known to every damn' one o' yer, and the Skookum Kid, just landed from down-river; if ye want to see what the Kid can do, take a slant at Olaf here.'

The men all laughed as Olaf grinned good-naturedly with his purpled and blackened countenance. The Kid stood up and peeled off his coat. He was stripped to the waist, his legs were bare, and the betting went down to 3 to 1.

'Tolmie—The Kid. Seconds out. Time!'

They jumped across to the middle of the ring amidst a dead silence, touched hands, and the Kid jumped clear as Dave's fist came round in a swing that would have knocked a stone pillar down.

The Kid had all the advantage of height and reach and their weights were about equal, but Tolmie's body seemed to be made of steel ropes round a granite frame. He was quick with his hands, but not so quick on his feet as the Kid.

The first round was spent in Dave chasing the Kid round the ring without getting a good blow in, and the Kid dancing round and getting several into the older man's face but without shaking him. In the second round the Kid was knocked into the ropes with a blow in the chest, but got away in time to thicken Dave's left ear.

The betting was still at 3 to 1, and it wasn't till the fourth round that things got really going. Dave had knocked the Kid into a corner with a blow on the forehead and was on to him as he rose. But Dave had been wasting a lot of energy on empty air, and his blows were not so rapid nor so heavy.

'Keep it up, Kid!' screamed Dan. 'Slam 'im in the mush! Paste 'im under the tab! Attaboy!'

'Tie into 'im, Dave!' shouted the others. 'Chaw 'im up! Over the ropes with 'im! Kill the timekeeper with 'im!'

The Kid had his back in the corner, and for a few seconds the two men slogged at each other without much guarding. The Kid landed a heavy left on Dave's mouth, and his own left eye was suddenly closed. He was badly cornered and was getting the worst of it. He ducked under Dave's left and put a strong hook to the mark. Tolmie fell to the ground, but was up in a second and hit the Kid full on the jaw. The Kid went down on his back. 'One—two—three—four,' he got on to his hands; 'five—six——Time!'

They lifted the Kid to his chair, but Dave walked to his, spitting a front tooth out of the ring as he did so. Dan threw snow on the Kid (he had twenty-five dollars on the fight) and Olaf fanned like a madman.

When time was called he was feeling fairly good, and he managed to keep away from Tolmie during the whole of the next round. In the sixth he was feeling fine, while Dave was getting winded. The Kid landed several punishing blows to the face, and at last he took a swing on his glove, and got Tolmie fair in the jaw with the right. Dave went down with a crash, crawled to his feet before the count, and the Kid was on him like a whirlwind. Dave could not get inside the Kid's reach and was getting badly punished when time was called. The odds were even.

The next round saw the end of it. Dave was feeling dazed by the sledge-hammer blows he had received, and was getting slovenly in his movements. The Skookum Kid slipped outside a right lead of Tolmie's and put the whole strength of his body into the right upper-cut. It landed true on the point of the jaw, and Dave Tolmie sagged over the ropes like a wet rag. It was ten minutes before he recovered consciousness.

Dan Mackintyre and Big Olaf were dancing a bunny-hug round the ring, Ab Lawry was yelling at the top of his voice, and everybody else was stamping and shouting. The Skookum Kid stood up in the ring and shouted for silence.

'Well, boys,' he said, 'I hope ye had a good show fer yer outlay. I get two hundred plunks outer this, and I 'll tell ye that it 's all going to be blown right now! There 's a drink on me for every son-of-a-gun in this room. I 'll be with you when I 'm dressed, and we 'll make the town hum to-night!'

THE CARIBOU HUNTERS

Joe Fraser and Chandalar Sol were partners and brothers-in-law. Sol was a full-blood Indian of the tribe of the Chandalar (*gens de large*). Of all the tribes of the Loucheux the Chandalars are the finest-looking, the most prosperous, the pleasantest people, and the best hunters. They have remained so because, of all the tribes, they have come least into contact with the white man and his whisky, and the fur-trader with his crooked, petty ways of living on the uneducated and easily cheated savage.

They live away in the Endicott Mountains of Alaska, and only once a year a few men come down to exchange wolf and fox pelts and caribou leather for guns, traps, tea, sugar, and tobacco. They come into the Indian village of Fort Yukon every November, long-haired, tall and handsome, with flashing dark brown eyes. When their trading is finished, they harness their grey wolf-dogs, and running swiftly and lightly, they disappear into the timber to the northward, tired already of their week's 'bust in civilization.'

But Sol had left his people of the mountains for the more varied life on the great river and its other tributaries. With Joe, he had spent the summer prospecting on the Colleen River, and the winter found them practically broke, with no very immediate prospect of wealth. The fur had decreased in the land, as fur will periodically. The lynx had migrated and disappeared to southward and eastward, the mink and fox were few, and the prices were low.

‘ ’Tain’t no damn’ good trappin’ this winter,’ Joe said one night, spitting thoughtfully into the ash-box. ‘ There ain’t no fur in these blamed flats, the link ’ve beat it for keeps, we can’t sell no marten or beaver, an’ I guess the mink and fox ’ve just went and croaked to show their dog-goned independence ! ’

‘ Trappin’ this time I think jus’ same as prospec’ ! ’ said the Indian with a grin, thinking of the hard-worked and unrewarded summer they had just spent. ‘ I think we bes’ go Chandalar. Lots of *vutsai* ’ (caribou). ‘ We kill plenty an’ buil’ cache. Then we haul in and sell fat meat good, hein ? Plenty wolf too that place. Maybe wolf we kill, put down poison some place ; Chandalar wolf no savvy poison. We don’t gets broke this time ! ’

‘ You said a mouthful, Sol,’ said Joe with a smile. ‘ We ain’t gonna git broke this time, even if we have to cut wood all winter, which I ain’t over ’n’ above stuck on ! I guess you ’ve sure hit it about them mountains. Them ’s the place for us ! ’

The Chandalar, whither they proposed to go, flows south from the Endicott Range, joining the Yukon north of the Arctic circle.

Leaving Fort Yukon at that time of year, the partners would not see the sun again for the next four months, unless they came back sooner, for from November to February the sun does not show itself in the valleys of the Endicotts. For six hours or so every day, unless there be a snow-storm, a man can see to travel. The whiteness of the snow increases the visibility, and the eyes get accustomed to the darkness. With a good moon, travelling is possible at any hour.

A week later they pulled out of Fort Yukon, to the jingling of sleigh-bells and the flying of coloured ribbons from the collars of their team. As they passed through the village the dogs barked and howled, and the women waved their hands from the cabin doors and cried, ‘ Good-bye, *savaie* ! ’ (sweetheart).

‘ Good-bye, *savaie* ! ’ cried Joe to a shapeless squaw of some seventy years. All the women laughed, for that is Indian humour. But soon they left the town, and their journey started. They were using one sled, with a team of six, their load being dried salmon for the dogs, a ham of caribou meat, rice and hard-tack for themselves, also tea, tobacco, and their rifles, snow-shoes and beds, with the little necessities such as babiche (raw-hide cut into strings), needles and sinew, tanned moose skin for patching clothes or moccasins, ‘ Native Son ’ matches, spare snaps for the harness, and three axes, also a small sack of spare clothes for each man. Their food was calculated to last a week, with enough tea and tobacco for coming back as well as going, and for presents to Indians on the way.

The first day they covered thirty-five miles and reached a small Indian village of four cabins. In one of these they slept, after giving their dogs a good feed of fish. The owner of the cabin, Johnny Porcupine, gave a feast to the few men of the village in honour of the visitors. They ate, sitting cross-legged on the floor, round the huge pot of boiled ptarmigan and snowshoe rabbits.

The travellers told all the news of Fort Yukon: what old people were dead, young people married, which women had borne children, and what all the different men had killed during the fall hunting.

Johnny Porcupine complained bitterly of having to wait around the village instead of going into the mountains to hunt. An old man had been dying slowly of consumption.

‘ Whatsermatter Robert Choh he ’s don’t die yet ? ’ said Johnny. ‘ Three mont’ all the time he die. Not dead yet ! One mont’ grave I dig for bury him. I got to wait here till he ’s die. He ’s take long time.’

After the meal Joe translated some letters from a St. Louis fur dealer, and the partners stretched their beds on the bough-strewn floor and fell into a dreamless sleep.

They started before daylight next morning, and for six days travelled steadily up the Middle Fork of the Chandalar. Towards the head of this river they expected to find the great herds of caribou. They would spend a week hunting, butchering the meat, and ‘ cacheing ’ it from wolverine and birds. But each day, as they travelled forward, they saw neither track nor sign of the caribou. They took turns breaking trail, the other man running behind the sled, keeping it upright over the rough ice and sloping banks. At night they would build a ‘ siwash ’ camp, digging a big hole in the snow, lining it with green spruce boughs and building up a three-foot wall of green spruce-trees for a wind-break on back and sides. In front they would kindle a big fire of dry spruce. Every day they would run into ‘ overflows.’ These are caused by the river freezing to the bottom in some shallow place. The water, flowing from above, bursts the ice and floods the surface to the depth, perhaps, of several inches. When they reached these Joe would pull on his Esquimau water-boots, or mukluks, made from seal and walrus skin, and test the new-frozen ice. If he, as the heavier man, could cross safely, Sol would follow with the dogs. If not, they had to make a portage through the forest along the bank. This was losing time, as generally the timber was thick, and they had to cut a trail for the sled.

To fall through the ice of the overflow would mean discomfort and danger, though there were only a few inches of water above the solid ice. A man's feet, when saturated thus, will freeze in the Arctic winter in less time than he takes to build a fire, and when a sled goes through, beds, fish, food, and spare clothing become solid cakes of ice. The sled must be scraped, after getting wet, for about two hours before it will run. When dogs get their feet wet, lumps of ice form between their toes, and they bite these out, pulling the hair out with them. Then the snow makes their feet sore where the hair has been lost.

Each man's bed consisted of a blanket of rabbit skin and the skin of a bull-caribou, the hair left on, dried raw. On these latter they slept. The dogs had had a hard time all the way up the Middle Fork, and they expected any day to hit the caribou, so they had not cut down the dog-feed to economize, and on the sixth day it was finished. Each morning and night, while one man built or broke camp, the other would put on his long, light snowshoes and go up the nearest hill to look for signs or sight of the beasts which were to be their food, without which they would starve.

When the fish gave out they cut up their caribou skins and boiled them for the dogs. They had only one more day's feed for themselves, and next day they ate up the meagre little ration and punched more holes in their belts.

That night the dogs got nothing.

Next morning they arose and had a large drink of tea and a pipe apiece for breakfast. The dogs had howled all night, but sympathy had held the men from beating them to silence. They discussed the situation. What should they do next? They would take at least nine or ten days to get into Johnny's village under prospective conditions, with or without killing their skeletons of dogs. If they continued their journey into the mountains they would be certain to find the caribou in time; they could kill their dogs as a last resort.

It may sound easy and obvious in theory, but in practice it comes hard, if you are a decently human man, to kill and eat a beast that has slaved and starved for you and shows he knows that you are about to kill him, and why.

That day they covered ten miles, and at night cut three feet from the length of their sled, and boiled the moose-skin parchment from its sides. Most of this they gave to the dogs, but they ate a little themselves and kept some for breakfast next morning.

Raw-hide contains quite a little nourishment, and, although not an appetizing fare, seems good to a hungry palate. Tanned skin is no use for food, the glue being removed or rendered valueless by that process.

Next night they had nothing more to give the dogs, and all they could possibly spare for themselves was a little babiche, which they ate slowly and methodically, extracting the maximum enjoyment from each mouthful, for each man knew full well, though he said nothing, that it might be his last meal on earth.

But still they travelled on. Day by day they toiled forward, grim and silent, every hour a week of misery.

Every day their hope grew less and their bodies weaker. They felt that their backbones had turned into jelly, their knees to water, their heads and feet to lumps of lead, and their hips felt as if red-hot sand had been mixed with the joints.

And throughout all, day and night, working forward or crouching over the fire, was the awful hunger for food. Sometimes they felt ravening, looking at their poor starving dogs with red and longing eyes, trying not to look at each other, or sick, feeling like vomiting, or else the hunger pang would twist and torture them with the shrinking of the stomach. They still had tea, but they left the tobacco alone.

Weaker and weaker they got, and as they weakened the cold took greater effect on them. They changed their drill parkees for coats of caribou fur; they wore the coats at night, and still had to keep the fire burning till morning. They tied their dogs up at night, no longer for convenience, but for fear. In their own misery and agonies, they grew callous of the sufferings of the poor beasts. The dogs knew that there was no food and never howled for it after the men had finished their last meal. They did their poor best every day, and the men looked forward with horror to the time when weakness and cold would compel them to kill and eat their poor dumb helpers.

Joe froze three fingers of his left hand down to the middle joints, and in the racking torture of thawing them out, coupled with lowered vitality and the misery of their plight, he sat down on the load and sobbed like a little child, while Sol, equally wretched, rubbed his fingers back to life.

On the fourth day of starvation they came to the mouth of a small creek flowing from the east. They turned up this and travelled for two days, but still no sign of caribou.

They did not see sign even of rabbits, porcupines, or ptarmigan. Not a living thing was in the country except themselves and the furry skeletons that whined and toiled in the harness. God seemed to be dead in the land and to have cast a curse and a blight upon it.

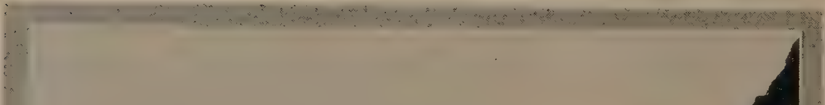
The glorious peaks of the Endicotts, jagged and steep and mantled with snow, rose all round them, like great, forbidding phantoms, out of the forest of spruce which covered their bases, towering above the little, white, winding creek, up which the starving travellers were toiling. The valley was beautiful beyond the wildest dreams of Heaven, and yet no living creature remained to behold it.

Every night, when they crawled into their sleeping robes, each would confidently assure the other that to-morrow they would find the caribou, but Joe would pray in his heart for strength to carry him through the ordeal of the next day.

Sol, usually economical of speech, spoke not at all, except to express confidence, for Joe's sake, but his own thoughts were resignedly fatalistic, according to the nature of his race.

On the sixth day they crossed the summit of the range, and started down the slope to the East Fork of the Chandalar. That they found strength, in their horrible weakness and emaciation, to make the ascent was miraculous. When they reached the timber at the head of a little creek, and at last stopped for the night, they were in danger of falling exhausted in the snow, unable to rise, and freezing to death, losing the race in the last lap. They made a slovenly little camp

ON KENO HILL



THE UPPER PORCUPINE

and fell asleep almost before they could get into their robes. Their spark of life sank down and down, and would probably have gone out if a fall of snow had not given them an extra blanket and warmed the spark to action again.

As Sol was harnessing the dogs next morning he cried out to Joe :

' Look, Joe ! Chahtsul feel good ! '

Indeed, Chahtsul (little boy), the wise old leader, was pulling on his chain towards the lead harness, waving his plume tail in obvious anticipation of something good.

' Caribou this time all right ! ' Sol said with a genuine grin.

' Mebbe ! said Joe, putting on his snowshoes. ' Liable ter hit 'em, but I ain't figger'n' on nothin'. Guess the poor old devil 's gone daffy. 'Tain't wunnerful ! ' He limped painfully down the creek, the white dog following close, his tail in the air for the first time for a week.

But Joe had not much hope. He thought they would have to kill their dogs one by one and eat them, till they could get back to Fort Yukon. They would be lucky to get back even at that rate. As he walked slowly down through the alternate soft snow, hard crust and glare ice of the rocky creek, Joe thought of many things. He thought of his old bed at home in Vancouver, and of the kitchen table where he and his brothers and parents ate their three meals a day. He thought of the good food he had felt disinclined to eat and turned away from. He thought of what he would eat if he were there now. Would he start with beefsteak pie or with a piece of brown bread, thickly buttered ? He would like to be in old Jean Latour's road-house in Fort Yukon, always warm and comfortable, food always at hand, and made doubly pleasant by the white-haired old French-Canadian, who treated all comers alike as friends and equals, whether they were celebrated explorers returning from Arctic discoveries or bankrupt miners begging a crust.

Joe remembered how he had abused old Jean for serving him a duck and forgetting to take out its entrails. What a fool he had been! If only he had those entrails now! He thought of his father, hardy old Scot, and visualized him calling for his porridge in the morning. He thought of his brothers. One of them kept a restaurant in Victoria, lucky devil! He thought of his old mother, handsome and wise and peaceful, laying newly baked cakes and bread on the table before him. His thoughts wandered again, and he saw a vision of glorious brown eyes and hair, curved red lips, and . . . Back to earth at a shout from Sol:

'Joe—ah! *Zuk! Zuk vutsai!*'

(' O Joe! Look! Look at the caribou!')

On the skyline of a hill, some four miles away, stood a band of caribou, looking back. Then they laughed and chattered and sprang forward with a lighter step, for they had found the caribou, found the meat which is the fuel of life.

Joe caught himself humming 'Annie Laurie,' and Sol shouted from behind:

'This time no die, I think! Goddam! Pretty soon one Hell belly-ache! Belly-ache she 's bad one, but not so bad as die!'

And Joe shouted back: 'You bet we 're jake right now! Thank God we ain't killed none of the dogs!' For he loved his dogs, not as pets, but as fellowworkers, and particularly Chahtsul, the crafty old leader.

But the dogs were far from dead, and were showing such keenness that the men knew that they were near caribou. Half a mile on, and they came upon the fresh trail of some dozen beasts.

They stopped and built camp, laying the fire without lighting it ; then both men put on their big hunting snowshoes and started along the trail after the deer. Within half an hour they could see them, on a bare mountain-side a mile farther on. After a careful stalk they got within about two hundred and fifty yards.

The caribou were pawing at the pockets of soft snow between the ridges to get at their food, the moss below.

Joe took steady aim from his knees and brought down the biggest bull with a Spitzer bullet in the shoulder.

As the caribou stood momentarily bewildered at the collapse of their leader, Joe killed a fine barren cow, and Sol, firing about ten shots rapidly, after the manner of his kind, brought down two cows and a young bull.

They gralloched the barren cow, not bothering to skin her, and Joe cut out a shoulder, while Sol filled his packsack with guts, the aorta and other choice bits, which the Indian loves, but which the white man generally despises.

On returning to camp they ate as much as they could, which was very little, and drank some tea. Joe fed the rest of the meat to the dogs. Then after the first pipe for a week, he hitched up the team, and with light heart and heavy stomach made his way to where the dead caribou lay, and turned the dogs loose on to the body of the big bull.

They hauled in the bodies of the caribou, and, after taking out the titbits for themselves and the best meat from the tenderloins and shoulders, they gave each dog half a beast where he was tied.

For three days they stayed there and built up their strength. At first they ate little at a time and very often. The dogs just lay in their holes in the snow, gorging and sleeping alternately. The men cooked and smoked and ate. They had roast and boiled, fried and just warmed (Indian fashion). They discussed with pleasure the comparative merits of tongues and hearts, kidneys and brains, tenderloins and shoulder meat, young bulls and old cows.

Sol feasted on guts, lungs, tallow, nostrils, and those things which the natives consider delicacies. He imagined he ate them 'roasted,' but really he only warmed them over the fire, melting a little of the fat.

After a three days' life of eating, smoking, and sleeping, when all the work they did was to cut and pack in firewood, they moved down the creek to the East Fork River and stopped in a clump of thick timber, green and dry.

They built a careful and comfortable camp this time, making a higher wall than usual and banking snow against it. They stayed there for a week, hunting all day and leaving the dogs in camp.

They left the meat lying, dragged into heaps where they killed it, fixing up simple scarecrows to keep off ravens and eagles, and setting a fox trap at each pile, more to frighten than to catch, though they caught two fine red foxes in this way. There were few wolverines in that part. They are the boldest and most relentless thieves, caring nothing for the taint of human scent, less for the efforts of man to keep the invader from his property.

Joe and Sol had no fear of wolves stealing their meat. The caribou swarmed on every mountain-side, and the wolves were in great numbers feeding on them. A wolf shows great respect for a man's property, but will not mind taking what he thinks has been thrown away. For this reason Sol put strychnine into the heads and entrails of some of the caribou, and throwing them far from the snowshoe tracks, left them there, taking care not to go near them. In this way he killed seven grey wolves and two black (blue) ones. That he could do this was due to the wolves of the Chandalar never having been poisoned. Poison is dangerous to deal with, as dogs may get loose and pick up the bait.

They spent a week in their camp on the East Fork, during which time they killed fifty-one caribou. When they had hauled them all down to the camp, they spent a strenuous day building a big cache in which to store them.

They chose four good-sized spruce-trees for the uprights, lashed bottom beams on to them with rawhide, then laid poles across the beams, touching each other, till a solid platform was made about ten feet from the ground.

They cut the caribou into quarters with an axe, and laid them neatly on the platform. Then, using lighter bottom beams, they built a roof immediately above the piled meat, lashed poles together into four walls all round, and their property was stored in a box, safe from eagles or ravens. Their last precaution was to bark and carefully smooth the uprights below the floor of the cache, and throwing water (snow melted in a kettle) over the smoothed surface, they had their cache on pillars of slippery ice. This was necessary in case a wolverine should come along, and to prevent ' weasels ' (ermine) or marten (American sable) from burgling and defiling their meat.

They took as much as the shortened sled would carry (about two hundred and fifty pounds) and started down the river for the Yukon, light of heart at having accomplished their purpose and escaped a horrible death after gazing into its face for so many weary days.

The East Fork of the Chandalar is a bad river to travel on. Many overflows trouble the traveller, and, while the ice is rough, the nigger-heads on the bank are worse. While walking on the big hunting snowshoes a man knows and cares nothing for the ground below. He only sinks through about three inches of the powdery top layer of snow. But when breaking trail for dogs dragging a heavy load, a man must wear small snowshoes, sinking deeper and feeling the shape of the ground.

Big nigger-heads are a sore trial to the toes and ankles, wind and temper. The sled jolts, rocks, and bangs from side to side, and the dog-driver must hold it steady all the time and lift it up whenever it upsets, which is probably every hundred yards, or less. These nigger-heads are pear-shaped tussocks of coarse grass, growing small end downwards. From the head the long blades of grass grow outwards, touching those of the next plant. If a man puts his weight on one it will turn over, and a large nigger-head will throw him down, probably twisting his ankle. Nigger-heads run from a few inches to about three feet in height. In the summer they combine with the mosquitoes to make life in the North a burden.

Towards the end of the first day's run they reached the camp of some inland Esquimaux. There were two families, and apparently some old dependants, living in two lodges of caribou skin, buried deep beneath the snow. They made the travellers welcome, speaking Takudh, and Joe and Sol were glad to see their cheery, ugly faces and to talk to strangers for a change.

The Esquimaux, or 'Huskies,' fed the dogs, and gave their visitors an excellent meal of porcupine and some blueberries, picked in the summer.

The women took their clothes and moccasins and patched the holes, one old woman chewing Joe's mukluks to soften them before sewing. As a seamstress the 'Husky' woman has no equal. It is so essential to the 'Husky' that his clothing should be windproof, his mukluks waterproof, that such skill is a necessity to existence. A garment defectively sewn will be extremely likely to cause severe freezing, perhaps death, unless immediately detected and remedied. In sewing they push the needle away from them.

The two partners made the people a handsome present of tobacco, tea, and matches. The old chief, full of gratitude and hospitality, brought in his daughter from the other lodge to entertain the strangers. The girl was shapely, young, and good-looking, but Joe explained to the old man that he had a loving wife at home with his two children, and that he did not 'cheat.' Failing to understand these sentiments, the old man, thinking he had not offered enough, brought in his old wife, wrinkled as a last year's apple.

Joe vigorously protested that to take such enjoyment after eating blueberries was his particular 'taboo'; that if he did he would be visited by all manner of evil spirits, who would torment him. Fully understanding and sympathizing, the old Esquimau sent his wife back to the lodge and gave himself up to tobacco.

After mutual protestations of undying friendship, the two partners set forth again, and the day after they went up a creek from the east and climbed over into the Salmon River valley. They and their dogs were now strong and well, and crossing over this Divide was not the hellish, prolonged agony of their late experience of the kind.

At the head of the creek they found another smaller camp of Esquimaux. But this time there was no cheery welcome, like the last, with laughter and shouting. Now anxious eyes looked at the sled and its load of meat with a meaning that was not lost to the travellers. They knew that the people had delicate feelings about deliberate begging, so they hauled out a big shoulder of fat meat and gave it to the women to cook.

The camp was full of women, children, and old people, and the only able-bodied man had broken the only rifle a week or ten days before. They had now been starving for four days, feeding the children meagrely on what few ptarmigan and rabbits the women could snare.

In times of starvation the meat-getters, the men, have the preference in food, the children next. But this poor hunter could get no meat.

Sol gave the ‘ Husky ’ his rifle and a good supply of ammunition. When the partners continued their journey next day, they left every scrap of meat they could spare, to feed the people well till they should get some caribou.

They travelled on uneventfully until they reached the mouth of Salmon River, where they turned south-west down the Porcupine. Here a west wind blew half a gale, the first since a heavy fall of snow, and the flying powder froze their eyelashes together. Every time they thawed them apart they nearly froze their hands. While they warmed their hands in their mittens, beating them on their knees, their eyelashes froze together again.

Under these adverse conditions they made poor time down the Porcupine, and before getting near Fort Yukon they once more faced a meal of tea and tobacco.

'I hate like Hell to go into the Fort without no grub,' said Joe that night. 'Looks so damn' silly, don't it?'

But the partners were not fated to arrive home destitute. The next afternoon the wind ceased to plague them, and an hour before dark, Sol, running ahead of the dogs on the crust made by the wind, suddenly stopped and pointed.

'What 's 'at, Sol?'

'Black fox, I think!'

Joe hurriedly unsheathed his rifle and prepared to stalk forward on to the bearer of such valuable fur.

But it was no silver fox that Sol had seen. It was a raven, and it rose from feeding on something that lay beyond a piece of rough ice, out of sight.

These birds have a hard time, and are often reduced to haunting villages in winter, stealing scraps from dogs, patently miserable in the bitter cold.

Joe went ahead and suddenly stopped, astonished. There was the track of a big moose, running desperately, and on either side the tracks of a big timber wolf. In another minute he had reached the body, newly killed, from which the raven had been disturbed.

The wolves also had been scared away by the sleigh-bells, and had had no time to enjoy their kill. Joe made camp there, and Sol walked back along the trail, studying the tracks. Two wolves had chased the big bull down the middle of the river for about a mile, snapping at his flanks and trying to hamstring him. Two others, one on each side of the river, kept him from mounting the perpendicular river bank of frozen mud.

Finally, they had hamstrung him, and all four had pulled him down.

The men butchered the meat, packed it to the bank, and put it up on a cache, camping alongside. They gave their dogs a huge chunk apiece and fed full themselves.

When darkness came the four plundered plunderers lifted their voices in mournful howling. The dogs shivered and whined in terror. The men loosed them, and they cowered round the fire in abject fear of the vengeful fury and long-fanged, powerful jaws of the wild cousins whose meal and lawful kill they had usurped.

This may sound cowardly, but the ‘ husky ’ dog is no more a match for a timber wolf than an asthmatic poodle is for a ‘ husky.’

Wolves take great delight in dog-murder.

The men fired a few shots into the dark, but they would not be driven from their stolen meat. They stayed round the camp making night ghostly with their mournful lamentations. The fire was made to last till morning in case the wolves should get bold in the darkness and kill the dogs while the men slept.

Chahtsul, the old leader, shivering shamelessly, crawled, uninvited, into the camp and squeezed himself against the comforting bulk of Joe’s body.

The howl of the timber wolf, the hunger cry or the cry to the moon, is the wildest and most mournful noise in all the wild and mournful northern winter. Beautiful and musical, it is also horrible and tragic. The listening man feels his hair move on the nape of his neck when he first hears it, even in the dim distance.

But the partners did not trouble about the wolves. Full fed and with a top-heavy load, they pressed on to Fort Yukon, which they reached the following morning. They pulled up their dogs, and entered old Jean Latour's road-house.

'Hello, *mon vieux*!' cried Joe, as the old man came out of the kitchen. 'Where's Laura? Up at the cabin?'

'*Entrez, mon ami!*' said old Jean. 'Laura she inside here for help Maree feex eet some moose skeen. She's come out wan meeneet. *Sacré monjee, mon brave!* I glad for see you! I go fetch heem that Laura!'

Next moment she came in, her eyes sparkling.

'Ah, Joe, my man! I glad see you back! All the time I feel you have bad time! Tell me you don't have bad time, Joe!'

Holding her close, Joe prospected backwards with his heel and dealt Sol a heavy kick on the kneecap.

'Don't you worry, little woman!' he said. 'We've busted our sled, but had a dandy time! Nothin' went wrong! Jean, get us some beans and cake and coffee. I'm hungry as a meat axe.'

THE EDUCATING OF DUBBLY

MISSIONARIES (said the Skookum Kid) may be very excellent people in some respects. Many of them undoubtedly are. The same thing applies to Oxford graduates. But create a combination of the two, thrust him alone into a strange land of mountain and forest to wrestle with the superstitions of self-confident savagery, and he is liable to cut a very poor figure indeed.

Such a combination, under just such circumstances, was Dubbly. As ‘ Spot-cash ’ put it : ‘ You can't blame the poor gink ! By his own account his mother threw fits an' aunts saw visions, an' I guess he never had a chance to become anything better than a preacher.' Old ‘ Montana ’ was more lenient. ‘ I likes him,' he said to me, ‘ I jes' can't he'p likin' him. He 's sich a pore, miserable, iggernerant kind of a skate ! ’

He had been thrust, by fate and the Bishop, into a tiny Indian village on Wolverine River. Full of enthusiasm (it was early summer and the mosquitoes had not begun) he sat in the little power-boat that chug-chugged up the river to his future residence.

When he got there he had rather a severe shock. The mansion he had pictured was non-existent. So was his staff of faithful retainers. In their place was a small log-cabin, badly chinked with dusty moss, the window being an aperture covered by a white sack on which was inscribed the legend, ‘ Robin

Hood Flour.' On the step of this unromantic habitation sat a dilapidated Scandinavian attired in blue jeans, much the worse for wear. He eyed Dubbly with disfavour, his single eye glowing luridly from the mass of greasy flesh which he had been given in place of a face.

'Hello!' said this apparition, without moving. 'Guess yew 're Dubbly. I 'm Bone Creek Bill. They telled me yew was green as goose-grass an' I guess they doped it out about right. Yew 'll be figger'n' on stoppin' in this shack, I guess. It 's the only one here that ain't full up. It belongs ter me. Yew kin hev it for ten bucks per. I guess yew can't cook, so I fix yer vittles f'yer at another twenty.'

He got up and limped into the cabin to show its dismal interior to the now highly despondent Dubbly.

Next time I saw that worthy cleric was in January. As I approached the cabin and saw a large pile of firewood outside, I thought that a turn for the more energetic had overtaken that estimable man, and when I pushed the door open and walked in, my opinion of Dubbly changed from bad to good, until I was aware of him sitting, fatter than ever, hideously fat, in a home-made arm-chair.

'I say, what-ho! I 'm awfully jolly glad to see you, don'cher know—what!'

He shook my hand warmly, and I complimented him on the improvement in his cabin.

'Oh, yes, you know,' he answered, unabashed, 'I got that perfectly priceless old fruit, Bone Creek Bill, to do it, don'cher know. Sent the bill in to the Bishop, if you know what I mean—what!'

I went out to get that one-eyed Apollo's account of the proceedings. He gave it with great fluency and point, accompanied by much scornful expectoration. Among other things he said :

'He 's a dub, a reg'lar mutt ! Can't do a damn' thing fer hisself, ain't got the brains of a sucker ner the guts of a maggot. Can't cook, can't cut his own wood, can't do nothin' ! He ain't quit his cabin for ten minutes since September. In the fall he beefed about the wet and cold. When the cold weather come he kicked about that, and in the summer he was raisin' Hell about moskeeters. You know there ain't none here, an' he never went into the bush to try what they really was like. He gives me a pain in the neck, an' I wish he 'd go out fer a long walk with his hat off an' freeze his worm-eaten brainbox.'

'You should take some exercise,' I told Dubbly that night ; 'you 're getting fat doing nothing. Get out and rustle your own firewood ; chop it up anyway ! You should go out on the trail and shake that tallow off your carcass.'

To my surprise he agreed.

'I say, you know, I think that 's an awfully topping idea—what ! As a matter of fact, if you know what I mean, I did try cutting some wood, but the bally chopper slipped and cut my boot, don'cher know. Dashed dangerous things, choppers ; might have cut my foot—what ! But I think I might go for a trip somewhere, some time, if you know what I mean. I 'd jolly well like to go to Beaver Rapids some little old time. There are a lot of jolly old Indians who ought to get married. They jolly well ought. Dashed immoral people, Indians ! '

I was lying up at Wolverine River for four days at least, so I offered to take Dubbly up to Beaver Rapids.

I would allow two days to take him the forty miles, and another day for my own return. Dubbly was delighted.

‘ I say, you know, my dear old bean, most awfully jolly of you, don’cher know. Tell you the truth, I ’m getting fed up with Bone Creek Bill’s cooking. D’you know, he cooks beans for supper and warms them up again for breakfast ! BEANS for BREAK-fast ! ’ His voice rose to a shriek of emotion as the sense of his outrages overcame him.

My sympathy for him waned. I had spent most of that winter on the trail, sometimes very short of food, and had learned that beans make as good a breakfast as any one has a right to. I determined to jest with the corpulent Dubbly.

Next morning was warm, about zero weather, almost too warm for January travel. Dubbly came out arrayed like an Esquimau squaw in a gale, a ball of fur in which were concealed the glutinous body and soul of Dubbly. He got into the sled, for he had no snowshoes, and had never worn them. After a mile I had peeled off my parkee, for the heat, and ran in my shirt. The dogs were panting along with difficulty, dragging their inanimate load, the unspeakable Dubbly. After about an hour we passed between high ramparts and over crusted snow, wind-hardened. I took off my snowshoes and pulled Dubbly out of the sled.

‘ Get out ! ’ I said, ‘ shake your fat down and give my dogs a rest.’

He got out, complaining of the cold.

‘ Tell me that,’ I said, ‘ in ten minutes’ time ! ’

The dogs sprang forward with the lightened sled and I ran behind over the ridged crust for two miles or so before I thought of Dubbly and wondered how he was progressing. I stopped the dogs and looked round. In the dim distance, almost where he had started, I beheld Dubbly floundering and wallowing over the trail. He would climb ponderously to his feet, lurch forward like an apoplectic hippopotamus, and fall heavily to the ground. This performance he repeated every ten yards or less.

I sat down and lit my pipe, enjoying my musical comedy alone ; musical because Dubbly was shrieking dismally for aid.

When he came up he made no complaint about the cold, for he was lathered and wringing with sweat. It poured off his fat, greasy chin and nose ; his caribou coat gave off a cloud of steam. Dubbly was abject and miserable.

I explained to him how he would inevitably freeze to death unless he cooled off slowly, and I made him walk until he should have done so, but he sweated more profusely than ever.

It was nearing midday, so I called a halt, built a fire and dried him out, much as one would dry a portmanteau of clothes without unpacking it. He complained of hunger. I gave him a little tea, averring lack of time for cooking any grub. I wrapped him up in his fur sleeping robe. We started again, and Dubbly soon became more comfortable.

We crossed over a neck of land to cut off a bend of the river. The bank was short but steep, and in the middle of hauling the bloated freight up the ascent, Keno, the wheel-dog, stopped. Keno was an incurably lazy beast and his action had the effect of stopping the whole team and bringing the sled down the bank heavily over my foot, Dubbly within.

CURLEY WELL'S CABIN, HALFWAY ISLAND, 1923

CAMP ON McQUESTEN RIVER

I administered the lash to Keno and admonished him in suitable terms as we hauled up the bank and over the portage. We got into deep snow again and I addressed the dogs in such fashion as to cause them to exert their utmost vigour, which was quite necessary with such a load as the ponderous and fermenting Dubbly.

But that stickler for etiquette soon cleared his throat, coughed, and gave utterance to these words: ‘ I say, you know, old chap, is it necessary for you to use such AWFUL language to the dogs ? ’

‘ You,’ I said, ‘ must have been raised in a dumb hospital, but if you are in no hurry and object to my passing the time of day to these animals, I ’m quite willing to quit.’

I ceased from speech, boiling with indignation, and the pace of the dogs lessened by one half.

That such a pimple, such a wart and excrescence as this unutterable Dubbly should lecture me on how to drive my own dogs, was the last word which broke the dog-driver’s temper. But the Lord had delivered him into my sled, and I meditated on whether to take him fifty miles off the trail and lose him, or whether I should summarily slay him and give him to the dogs he had insulted.

While still thus luridly contemplating the annihilation of Dubbly, I saw a big overflow from Whitefish River lying right across the Wolverine. I slipped on my mukluks and determined, well knowing the infinite trouble it would cause me to dry him out, to give Dubbly a bath.

It was still warm, ten degrees below zero or thereabouts, and Dubbly would take no permanent harm.

I drove the dogs on to the overflow without going on to it myself. The dogs stopped also as the new ice creaked and bent under the sled. They, knowing that sore feet result from falling through overflow ice, stood, shaking with fear and indecision, and Dubbly began querulously :

'I say, you know, old bean, this ice makes a noise!'

'Yes,' I answered, secure in my mukluks, 'it does. It is going to break, in which case you, my unplucked parson, will get the father and mother of a ducking.'

Dubbly was distressed. One might almost say that he turned white with fear. Poor ecclesiastic, he knew nothing of overflows, and imagined that instead of falling through six inches or so of water on to solid ice, he would sink to the bottom of the Wolverine River, eventually to be washed into the Bering Sea.

'Make the dogs go on!' he quavered shrilly. 'They 've stopped!'

'Go on, little bow-wows,' I murmured. 'Go on, like good little doggies, and I 'll see whether I 've got some candy for you in my pocket.' Revenge is sweet.

'Swear at the dogs!' shrieked Dubbly, agonized with terror, 'swear at the dogs!'

My leader turned round and eyed the demoralized preacher disagreeably. I swore at the dogs, and the dogs went ahead, over the overflow. I continued to swear at them till we were clear of it, and then turned on the relieved but shamefaced Dubbly.

'Now as for you,' I roared, 'you mangy, misbegotten, worm-eaten, flatulent, pot-bellied, yelping, swivel-eyed abortion, why the —— didn't you stay in the —— workhouse where you were spawned, instead of coming up to this country and making yourself a —— nuisance to every one in it? I wish I 'd let you down the overflow and left you there! I was too soft-hearted.'

I spoke to him in this wise for some time, but mostly more so, for I was very angry. I expected he would get out and give me the chance to smash his face in; but he didn't. Dubbly was broke; abject and conciliating, he remained in the security of a horizontal position. He was broke, but he was also yellow, for I had spoken words that would have brought fight from an Arkansas Jew. Realizing this I became sad, for Great Britain's sake, and also for my own. We travelled on all day, I talking freely, Dubbly silent.

When it began to darken into night, I stopped the sled in a nice patch of timber, hauled Dubbly out, and told him to collect firewood. While he collected two green sticks and a rotten one I built a fire and fried some beans, which I had cooked overnight.

I had brought a little tent along for Dubbly's comfort, but now I loathed him with a great loathing and there was no tent for Dubbly. I didn't even dig a hole in the snow to sleep in, but stamped a place out with the snowshoes and lined it thinly with spruce boughs. It was a warm night, and Dubbly would take no harm in his fur robe.

'What is there for supper?' he asked.

'Beans!'

Dubbly was dumb.

I made a good supper and lit my pipe, but Dubbly was restless. He lost his change of socks, he was cold, he couldn't sit crosslegs without getting cramp, and if he didn't he got colder. I dwelt, at some length, on the disadvantages of adipose tissue. Dubbly had no excuse for being so gelatinous, for on his own admission he was only thirty-five. I gave him my full views on the subject, rolled myself in my robe and went to sleep. I was awakened rudely, one minute later, by a heavy weight floundering about alongside, which was Dubbly frantically trying to roll himself up in his robe. I arranged him, cursed him, and went to sleep again. Ten minutes or so later I was again awakened by Dubbly complaining bitterly of the cold. I pointed out that it was a warm night for January and that I was comfortable myself. He requested me to turn over so that he could warm his back against mine.

'No!' I said, 'I won't. If you want to keep your back warm at night you'd better get married. Ask a negress; it 'll save time and disappointments.'

At midnight I was awakened by Dubbly shrieking and moaning. He was, he said, freezing to death. He was already frozen. He was nearly dead.

I told him that I wished he was quite, for waking me up, and that he'd better relight the fire. He fumbled with matches and clumsy shavings till he had actually frozen two fingers.

I had to relent then; so lit the fire and warmed him up.

Pitiful was the humiliation of Dubbly, and next morning he was really glad to see 'beans for breakfast.' He almost wept with joy when we reached the Beaver Rapids and pulled up at the little Indian village.

Dubbly said good-bye to me next morning with the self-congratulatory air of a man who has come safely through intolerable hardship owing to his own fortitude. I laughed and went back down the trail.

Six months later I came down from the mountains to Wolverine River. I was met at the bank by Bone Creek Bill, the Bean Server.

'Where's Dubbly?' I asked, 'and how is the mutt?'

'Why,' Bill replied, 'he went out on the first water; couldn't go quick enough. He was a punk; no good—never was any! Say, Kid, what the Hell line o' dope d'you pull on him when you took him up to Beaver?'

KAIHAENJUIK

An Indian Legend

In the days before the white men came into Alaska, the chief of the Kutcha-Kutchin was a mighty giant named Kaihaenjuik. He was so strong that he could kill a bear with his hands, and so tough that no arrows could pierce his flesh beyond the barb. He wore the palms of moose-horns on his forearms, as shields, and the points of the horns stuck out sideways when he bent his elbows. He could run, jump, wrestle, hunt, shoot or throw a spear, better than any man that ever lived; therefore all men hated him and were afraid of him.

Kaihaenjuik had four brothers, younger than himself, whom he trained as great warriors and fighters, though they never equalled him. The youngest, however, was still a little boy when Kaihaenjuik, teaching him to fight, threw him into a pit with a brown bear cub which bit his legs so that he was a cripple for all his days.

This crippled brother was the most devoted of Kaihaenjuik's adherents, and would always pull the arrows from his back after a battle, for Kaihaenjuik was so heavily muscled that he could not reach behind him.

At the time of the feasting, when the men competed in wrestling and spear-throwing, Kaihaenjuik, the chief, so far excelled all the warriors that they became jealous and decided to kill him. So they made a plot to kill his brother by treachery, for they said, ‘ By killing his brother we shall wound the heart of Kaihaenjuik.’

They organized a great moose-hunt in the hills of the Han-Kutchin, with whom they were friendly at the time, and hundreds of people gathered together to go on this hunt. On the first day the hunting party ran on to the tracks of two moose, heading in different directions. Kaihaenjuik and about twenty men went along one trail, while his brother and two of the Han-Kutchin followed the other. As the brother was running along the trail of the moose, these two warriors shot him, from behind, with arrows, and killed him. When they joined the other party they found that Kaihaenjuik had killed his moose and was roasting the head over a big fire.

‘ Where is my brother ? ’ asked Kaihaenjuik of the two Han-Kutchin.

‘ Oh,’ they answered, ‘ he killed the moose and has stopped to roast the head.’

But Kaihaenjuik knew that these two men had killed his brother, and though he said nothing his face grew black with anger. He took the moose head from over the fire and tore it in halves with his hands. A boy, standing near him, started shivering with fright at the sight of such strength.

‘ What are you shivering for, child ? ’ asked Kaihaenjuik, and gave the boy a dig in the chest with his elbow, driving in the points of the moose-horn shield on his arm. The boy dropped dead.

Then all the men began to shoot and to throw spears at Kaihaenjuik, but he leaped among them like a wolf, waving a half of the moose head in each hand,

and with these he killed them all, his three brothers helping him. There were twenty warriors against three and a cripple, but Kaihaenjuik was as strong as a brown bear, and as savage as a she-wolf that has lost her cubs. In a few minutes he killed them all, and then he ran back to the village where many more warriors were assembled. He shouted for the men to come out and follow a moose which he said he had seen very close.

'Follow my trail,' said Kaihaenjuik, 'and the moose will be close before you soon.'

The men all seized their bows and spears and ran out along the trail. When they had all gone past, Kaihaenjuik followed, and catching them singly from behind, slew every one of them. Then he returned to the village, killed all the women and children and burnt everything he found. Thus Kaihaenjuik avenged his brother.

From that time Kaihaenjuik became an outlaw, a 'na-in,' with every man's hand against him, and his hand against every man.

One day a party of hunters captured the cripple brother. They tried to make him tell the whereabouts of Kaihaenjuik, but he would not betray him, though they burned off his hands and feet; he died in silence.

One summer, Kaihaenjuik and his two remaining brothers were hiding among the mountains around the head of the Sheinjuik River. They amused themselves by throwing spears at baskets they made to float past them down the river. One day the two brothers allowed a basket to escape them in the rapid water. Kaihaenjuik was very angry, for the basket might have betrayed them to people down below. He ran a day and a night down the swift river and recovered the basket. Not long afterwards the two brothers again allowed a basket to escape them, but so terrible was the wrath of Kaihaenjuik that they dared not tell him. The basket floated down the Sheinjuik to the Porcupine, and there it was found by some people of the Kutcha-Kutchin, fishing on the banks. A great search was made over all the mountains to find the three 'na-in,' but until the cold weather came on, the warriors found no further trace of Kaihaenjuik.

About the time of the first snow, a hunter of the Vutsai-Kutchin, chasing a sheep on the Divide of the mountains, lost sight of it, and the sheep crossed into the valley of the Sheinjuik, where it was seen and killed by one of Kaihaenjuik's brothers. On tasting the meat, Kaihaenjuik began to get suspicious.

'This ram,' he said, 'was being chased by a man! I can taste it in the meat.'

The hunter who had been chasing it, looking down into the valley below, saw a small smoke rising from the trees; he crept back unseen, knowing that, at last, he had found the outlaws.

The tribes were gathered swiftly together, and all feuds buried for the purpose of hunting down the terrible wild man, Kaihaenjuik. They ascended the valley of the Sheinjuik stealthily, sending scouts ahead, who returned one morning saying that they had found the camp and that Kaihaenjuik had gone, with his brothers, up a steep canyon to the hills at the head of the river.

The warriors laid an ambush for Kaihaenjuik to catch him as he returned down the narrow canyon; a hundred on each side hid themselves among the rocks and willows. Kaihaenjuik had burnt a big brown bear from its den and smashed its skull with a club. He walked back with the skin and fat of the bear on his head and shoulders. As he got between them, the waiting lines of warriors rose up and fired a great volley of arrows. His two brothers, walking behind him, were killed instantly, but the bear skin saved Kaihaenjuik, and next moment he was among the warriors, killing them as a lynx kills rabbits. Though the odds were a hundred to one, he killed or disabled them all ; the line opposite could not shoot for fear of killing their own people. Then Kaihaenjuik ran up the cliff to a ledge in the rock which hid him from below, but not from the warriors across the stream. He was so high that they could not shoot him with arrows.

Kaihaenjuik sat down on the ledge and pulled what arrows he could reach from his flesh, making a little fire with them and warming his hands. As he sat before the fire, rubbing his hands together in the cold wind of the new winter, he called out to the watchers below, and his voice was like the voice of the wind over the rough ice.

'O warriors of the tribes!' he cried, 'you have found me at last and you have killed all my brothers, but not me ; for all your numbers I have killed all those who stood up to me! But I am weary and weak from loss of blood ; my brothers are dead, and I cannot pull the arrows from my back. I shall die on this ledge, warriors of the tribes, but I charge you to do one thing in honour of my strength. When you go back among the tribes, tell the people that you starved me out up on this ledge, not that you killed me. I do not wish that the women should say, "Kaihaenjuik was killed with arrows!" I am Kaihaenjuik, the chief of all men, and I bid you do this in honour of my strength!'

Then the warriors cried up to him: 'We will do what you ask, Kaihaenjuik, but you must give us the "nakieik" (shell-money) in your hair. Your hair is white with the "nakieik" of those you have slain!'

Kaihaenjuik fell back against the rock, as if he were dead, and two warriors quickly climbed to the high ledge upon which he lay. As they bent over him to take the 'nakieik' from his hair and garments, each man suddenly felt a grip on his neck like the teeth of a bear.

Kaihaenjuik sprang to his feet and stood on the ledge, holding his arms wide, in each hand a warrior. Then, with a roar like a great tree falling in a gale, he sprang from the ledge and fell far down on to the rocks below, the two men with him. Their bodies were smashed like over-boiled ptarmigan, but on the body of Kaihaenjuik the skin was hardly broken. So died Kaihaenjuik, and the ledge from which he leaped to his death can be seen to-day among the high mountains of the Sheinjuik.

SOLITAIRE

Down to Gehenna or up to the Throne,
He travels the fastest who travels alone.

In the northern wilderness where man is rarest of all living creatures, a mighty range of mountains, unmeasured, unclimbed, and unnamed, towers heavenwards, its snow-capped, jagged peaks feeding the Klondike River to the south, and the Peel, Wind, and Blackstone Rivers which wind their way northwards to the great Mackenzie Delta and the Arctic Ocean.

In all the little-known land of the Yukon there are no mountains more remote or untrodden than these. No Indian or white man makes his home among them, the wild creatures have the full run of the forested valleys and windswept crusted slopes of those wild hills. It was there that the Man elected to spend the winter. With two great dogs, Eagle and Bear, a small tent, and a rifle, he started from the McQuesten River and travelled due north in as straight a line as suited the topography. He would go forward on his small snowshoes, cutting a trail through the thick brush, and return to camp at night, to drive his dogs over the broken trail next morning. It was slow going, but the Man was alone and, Indian-fashion, in no haste.

In a week he had passed from the rounded hills of the McQuesten through higher and higher uplands till the towering peaks, like white-robed seraphim, stood all around him, and he was joined to human-kind only by his ribbon of trail, fourteen inches wide, that stretched back the fifty miles to the cabin of Dick Lapine, a well-known criminal from Dawson.

The Man built his camp by a creek in a clump of high spruce, and constructed a corral of stout poles for the dogs. Timber wolves were plentiful in those valleys and he had no wish to come home and find them murdered. Eagle, a giant among dogs and savage as a wolf himself, might have made a stand against one for a few minutes, but the wolves usually hunt in small packs of from half a dozen to twenty, and the two dogs would very soon have disappeared down their throats.

The first few days, after he had established his permanent camp, were spent in exploring the surrounding country and cutting out his trap lines. He was out all day on his big hunting snowshoes, returning in time to go round his rabbit snares before dark. It was a ‘ rabbit year,’ but they were already beginning to die of the disease that comes from over-crowding, and not all that he caught were fit to eat.

He had about fifty snares set, and rarely returned with less than six or eight rabbits, sufficient to feed himself and his dogs, but such a diet becomes very monotonous, and neither man nor beast thrive on it as on red meat. There were signs of moose in the valleys, but the weather was calm and windless, which is unfavourable for hunting them. High up above the timber line the Man saw the little herds of caribou, feeding on the lichens below the crusted ridges, and once, a band of wild sheep on a knife-edged ridge, looking down at him as he threaded his way through the stunted forest far below.

‘ When I ’ve laid out the lines, I must have meat,’ the Man said to himself. ‘ If the wind don’t get up I ’ll go up after them sheep.’ In his heart he hoped that the wind would keep down, for he had a longing to hunt the great white ram of the Northern Rockies, although one moose would supply him with more meat than ten sheep. He was ashamed to kill anything unless it was necessary, but like Brer Fox, ‘ he sot dar an’ study fo’ a ’scuse.’

He cut out about fifty miles of trap line, laid his traps and snares, and next day started up the long, tedious slope for the high tops where the sheep lived. He carried a robe of fur on his back, some tea and some boiled rabbit meat. When he reached timber line he chopped and split some wood and filled his pack with it. Then he changed his snowshoes, leaving the big ones in a tree, and putting on the little trail shoes for the hard crust.

Travelling up-wind the Man made towards the top of the mountain, one of the highest in that great range. All morning he toiled up the long slope, his rifle slung on his back, his axe in his hand to help him up the steepest pitches. Higher and higher he went, while smaller and smaller grew the valley below ; the spruce-trees seemed like grass, the little creek like a narrow white rut winding through the green. When he reached the summit, behold, it was no summit, but merely the crest of another long climb, steeper and, at the end, more difficult than the last ! Had the Man been unladen he would have made his way up this cliff with little difficulty, but his pack was bulky and heavy, while his rifle and snowshoes swung about and spoiled his balance. Two hours after midday he reached the crest of the summit and there he built a fire, warmed the rabbit meat and made some tea in a small copper pot. The high top of the mountain, looking like a pin-point from below, was a rounded knoll, swept almost clear by wind, the snow just resting in the crevices between the boulders of biotite granite strewing the surface.

As the Man ate his well-earned meal and smoked ‘ nigger-head plug ’ through a foul pipe, he reflected with great satisfaction that he had seen, in the course of the climb, many tracks but no sheep. They always watch the slopes below them, and it is only possible to hunt them from above. The wind had not changed and the chances were good that sheep on the farther slope would be undisturbed.

Fortified by food, drink, and smoke, he moved forward cautiously, peering to right and left at every pace. On the crest he pulled out his robe, spread it on the crust and lay down to sweep the country with a pair of binoculars. Far below him a great glacier led down to a little creek which wound its way into the distance, through the valley beyond, to Wind River and the Arctic Ocean ; all around soared the great white peaks, their eternal snow shining in the sunlight, dismal, chaotic wreckage to the plainsman, but the breath of life to the mountaineer. The Arctic winds do not encourage basking on their hill-tops, so the Man turned his attention to the mountain-side below him. He had a good view, and although the whole slope was in shadow the light was clear.

Far below the watcher on the summit, just above the line of dwarf spruce, a little band of sheep were feeding their way slowly towards the west. Galvanized into action, the Man rolled up his robe, seized his belongings, and started in long strides down the slope, the bottom of which now hid the sheep from view.

A steep cliff offered a temporary check, but he lowered his rifle and pack with a rope and scrambled down after them, falling the last dozen feet into a drift. He clambered out, resumed his pack, and reached the crest in time to see the sheep, now less than a mile away, disappearing behind another fold in the hill-side. He ran swiftly after them, following above and out of sight, his pack jolting on his back, the loaded rifle in his hand. The wind was strong enough to drown the creaking of the snowshoes. He crossed a deep drift, skirted a clean-swept glacier, and, rounding a knoll, he could see the timber line a quarter-mile below. To be invisible he was dressed in white, and he climbed the knoll slowly to save his breath, crawling the last few yards and lying flat on his stomach when he reached the top. He was still breathing heavily when a movement caught his eye, and a big ram with wonderful curling horns moved slowly into sight at the head of the little band. With a sigh of content the man slipped the rifle from its moose-skin cover, put the sights to 400 yards, and cuddled the butt into his shoulder.

Crack! The ram stood still for a fraction of a second and then started up the hill almost in his direction; the bullet had passed just over his shapely back and the enemy on the hill was invisible.

The sheep got to within about two hundred yards and the big ram turned away a little, hiding his shoulder behind a ewe. The Man fired again, this time at a younger ram; the beast turned a somersault, rolled twenty or thirty yards and lay still, a red stain spreading from behind his left shoulder. They now turned tail-end on and the Man had no wish to wound one, so he picked himself up and went to his prize, now lying lifeless in its blood.

He skinned the beautiful white creature, cut it up and dragged it, in its hide, towards the now hidden timber. It had become quite dark, and the moon was not due to rise till 2 A.M. The northern lights and the stars were hidden by clouds, and before going far down the mountain-side the weary hunter found himself blocked by a crevice over which he could find no way. Between him and the potential comfort of the forest this great gulf was fixed, and he was compelled to spend a cheerless night in the company of the dead sheep, foodless and fireless. He cut a small piece from the shoulder and chewed it for a while, but the frozen meat took long to thaw out in his mouth and gave him toothache, so he rolled himself in his robe and shivered through the long night, till the moonlight awakened him, and he found his way over the rough scree and round the yawning crevice.

It took two days to fetch the ram into camp and another two days saw nothing of it left but one shoulder, which the Man kept for his own fare. Sled-dogs have receptive stomachs and unceasing appetites.

‘ This sheep-hunting,’ the Man said to himself, ‘ is darned good fun, but not a practical meat-getting proposition for one man alone.’

A wind rose in the night, and next day he started off on a moose-hunt. But the wind sank down before noon, and he returned in the evening, having followed the track of a moose all day without a sight of him. The following days were windless and warm. The Man ran or walked along the trail without his parkee on and could sit down and smoke a pipe without building a fire, but he always returned empty handed. There were caribou in the hills, but not very many, and moose meat is by far the best. After some days of fruitless hunting the Man was at last favoured with a windy day. He soon found a fresh track and did not follow it far before he saw the big bull, his horns dropped off not long since, browsing on the twigs of young birch. A few seconds later that bull was dead meat, and the Man moved his camp to where the body lay.

He pitched his tent, built a new corral for the dogs, put half the stringy old bull for their food and the other half into a tree. Taking his bed and axe, some spare footgear and twenty pounds of meat, he started off on a long hunt.

The first day he struck the trail of a cow and her nearly full-grown calf. The wind had sunk down again and hunting was difficult, but he camped on their trail that night and for many nights following. When his meat ran out he shot ptarmigan and set rabbit snares, only stopping long enough in camp to get a few short hours of sleep by the open fire. The two moose were getting panicked by this human hell-hound that followed so continually on their trail. They could always hear the creak of the big shoes on the soft snow, but whichever way they went he was sure to follow. He glimpsed them once, lying on the ice of a lake they had just crossed, and as he started across the ice himself they got up, two miles away, and shambled into the thick poplar and willow undergrowth. But the Man was suffering too. Long days on the heavy shoes, short nights in the open camps, and a diet of straight meat were reducing him and souring his temper. His waist fell away to the girth of a girl's, his cheeks were sunken and the great ribs stuck out under his skin like those of a mummy. On the tenth morning as he topped a rise, always on the trail of the two moose, he saw them, a mile away, starting to cross the valley at the other side of which were his dogs and tent. He had hunted them round in a great circle, and now, after days of flight, leg-weary and bewildered, they had returned to the valley where he had found them. He watched them for a minute, then deliberately peeled off his parkee and hung it, with his pack, on a tree.

'The Indians used to run them down,' he muttered. 'I 'll see if a white man can do the same! It 'd be right handy to kill them here, close to camp.' He threw out his big chest and started running down the slope, his legs working like steel springs, the breath hissing between his half-closed mouth. It was a warm day and he was purple with exertion before he had gone three miles, but he had gained on the moose, which were now making a bee-line for the opposite hill-slope, five miles away. The snow was deeper in the valley, which gave the Man an advantage, for it covered up the impeding willows and retarded the moose by its depth. He ran another mile at a furious pace, till he came to the edge of a lake he knew. Half-way across it the two jaded beasts were struggling along less than half a mile ahead, the calf lagging behind its mother.

With his chest almost bursting the Man put forth all his power, running on the unbroken snow of the lake instead of on the tracks of the moose, through a belt of poplar, over a dry slough-bed, across a little lake, and against the slope of a hillock he saw the calf, utterly exhausted, crawling up on the old one's track. He was a short way off but still he did not shoot; he ran on and on, the sweat flying from his face to freeze in big drops on his leather shirt, the tough muscles of his legs standing out in sweating, corded knots.

Though in considerable distress, the Man was nearly drunk with excitement, the excitement of the beast of prey running down the quarry, of the primeval man flying on tireless feet along the trail of just such a beast as this. He seemed to be back in the early far-off ages, long-haired, wild-eyed and half naked; his rifle an obsidian-headed spear, running down the Megaceros in the European forests of neolithic times.

The end came all of a sudden. The calf, though nine months old and as big as a pony, could not keep the pace. It fell into a walk, and the Man checked his running to put a bullet through its head before he ran on after the mother. In another half-mile he was within a hundred yards, but so unsteady were his limbs that he halved that distance before firing, and, as the bullet crashed through her neck, the Man also fell, almost as if he had been shot himself.

He crawled to his feet, built a fire by the cow's body, and roasted the heart over the embers. Then he banked the fire high again to dry his dripping garments. His leather clothes were saturated, he stripped to his underclothes and dried those quickly, warmed his feet, and sat down to the best meal and most luxurious smoke he had ever had in his life with the satisfaction in his heart of having done what he had set out to do, in spite of odds against him, of having made his kill and found it good.

That night he returned to his camp and found his dogs in good shape, but nothing remained of the half-moose he had left in their corral. He hauled the carcasses in, put them in a big cache, and began to concentrate on his trap lines. Trapping is hard work, but it is not killing to the same extent as meat-hunting. Every day the Man would go round on his line, his dogs hauling the sled. The fur-bearing animals were fairly plentiful in those mountains, and almost every day saw him take some prize from the trap or snare. In the next few weeks he got several foxes and lynx, a few marten and mink, many weasel, and one coyote. Unfortunately, however, he had no wolf poison. In the evenings he would skin, scrape, and stretch his catch, and then the long winter nights would begin to tell on his active mind; he had nothing to read and no one to talk to. For a while that did not worry him, but after a few weeks he found, as he lay hour after hour on his robe, that his thoughts turned to the same channels as on previous nights, and ran through the same arguments to the same conclusions.

He would think out problems of religion, sociology, and the many sciences, but, as there was no one to discuss them with, he could never get beyond his own argument and solution. He found that his mind turned more and more towards womankind, but women were very remote from those mountains among which he had exiled himself. He tried to think of objects nearer at hand, as being more healthy food for thought, but spring was near and his mind always went back to woman again. He took to finding a maximum of work, often unnecessary, to keep his mind from eating itself out. He built a roof over his cache where no roof was wanted; he chopped three times more wood than he needed; he invented an improved air-tight stove and a new method of attaching the traces to his toboggan. He took to drawing pictures on the tent wall with a charred stick. One of them was a good likeness of a girl he had left eight thousand miles away; it stirred up memories and he rubbed it out. He mended his clothes where no mending was necessary, and sang songs till far into the night, but the songs brought back visions that tormented him. Analysing his own trouble he found that books were what he needed most, more than companionship. He could have buried himself in a book and got out of his own trend of thought, but there were no books to be had. He thought of the Ancient Mariner :

> Alone, alone, all, all alone,
> Alone on a wide, wide sea.

He did not wish saints to take pity on his soul, but he did want something to read when he returned to camp. He tried carving figures out of green birch wood, but that did not help him, and he gave it up. He thought of the Village Blacksmith :

> Something attempted, something done,
> Has earned a night's repose.

(He was talking to himself out loud, by this time.) ' Well, that 's what the guy said when he killed his wife for snoring. But it don't help me any ! I can only keep my mind off things if I come to camp plumb played out and fall asleep right away. I guess that blacksmith hadn't any imagination. I believe I 've been in this country too long. If I don't clear out soon I never shall be able to. But there ain't much that 's new to me now in this life. I 'll have to go outside and find something else. Gee ! I hate to leave this country, just the same ! But if I don't I shall go plumb batty ! Yes, I must get moving again, moving on to some other life with new faces and suns and smells and experiences ; always following the same little Blue Bird which is always beyond the next hill-top :

‘ Ever drifting, drifting, drifting
    On the shifting
Currents of the restless main ;
Till in sheltered coves, and reaches
    Of sandy beaches,
All have found repose again.

‘ I wonder if a man can eat the fruit of the Tree of Freedom and then tie himself by the law of the crowd ? I wonder if he can ever forget ; whether the eagle ever gets used to a coop, whether the bison could accustom himself to a stall ?

‘ The wayside magic, the threshold spells,
    Shall soon undo what the North has done ;—
Because of the sights and the sounds and the smells
    That ran with our youth in the eye of the sun !

‘ I wonder if it ever will ? ’

DERIVATIONS OF SOME NAMES AND WORDS

Canada (Huron: 'village,' 'settlement').

Alaska (corr. Russian: 'great land').

Yukon (Takudh: 'burnt earth,' from the volcanic ash in the water from White River).

Saskatchewan (Cree: 'swift river').

Manitoba (Ojibway: 'straits of the spirit.' The Great Spirit was believed to live in the narrow neck of Lake Manitoba).

Ontario (Iroquois: 'beautiful lake').

Keewatin (Ojibway: 'North-West wind').

Liard (French: 'cottonwood trees,' which grow very plentifully along the banks of that river').

Tanana (Tananatana: 'mountains').

Cree (corr. French: Kristineaux from Kenistoag—'rising sun').

Blackfoot (From their moccasins being blackened by the ashes of prairie fires).

Ojibway (Ojibway: 'to roast till puckered up,' referring to the style of making moccasins).

Sioux (abbreviated French corr. of Ojibway: 'snake,' or 'viper,' meaning enemy).

Chippewa (popular adaptation of word 'Ojibway.' The French name is Saulteaux, 'waterfall people').

Chipewyans (Cree: 'pointed skins').

Rabbitskins (popular name for Kahtchogotinne).

Dog-ribs (trans. of Thlingchadinne).

Yellow Knives (Tatsanotinne. From their copper knives).

Loucheux (French: 'squinters,' Hudson Bay Company name for Takudh Kutchin, also called Digothi, 'quarrellers').

Esquimau (Ojibway: 'weashkimek'; Labrador: 'huskemaw').

Athabasca (Cree: 'grass here and there').

Chandalar (corr. French: 'gens de large,' from the ultra-nomadic habits of the tribe).

Assiniboin (Ojibway: 'he cooks by roasting').

Algonquin (abbr. Micmac: 'spears fish from a canoe').
Iroquois (Algonquin: 'real snakes').
Dakota (Ojibway: 'allies').
Tlingit (Chipewyan: 'sorcerers').
Irkpélit (Esquimau name for Indians: 'larva of lice').
Dahadinni (Slave: 'useless river').
Nahani (Cree: 'people of the west').
Cassiar (corr. of Casca: Nahani sub-tribe).
Wapiti (Ojibway: 'yellow belly').
Moose (Algonquin: 'mûs-wa,' 'he strips off').
Cariboo (French: 'carré boeuf'; Algonquin: kaliboo, 'scratcher').
Carcajou (French form of Montagnais: 'kar-kah-joo,' another French name for wolverine: 'diable des bois').
Coyote (Spanish: 'prairie wolf').
Cayuse (Indian pony; from name of prairie tribe).
Whisky-jack (popular name for Canada jay. From corr. 'whisky john' from Cree: 'wiska chan').
Siwash (corr. French: 'sauvage' = Indian).
Babiche (corr. French: 'peau de biche').
Cache (French: 'hiding-place').
Bug (A home-made lantern: French: 'bougie').
Moccasin (Cree: 'maskisin').
Iglu (Esquimau: 'house' of driftwood, etc., for summer use. Not 'snow-house').
Peel River (from Takudh: 'river with peeled driftwood along the banks').
Chechaquo (Chinook: 'newcomer,' 'tenderfoot').
Potlatch (Chinook: 'feast').
Mush (word of command used in dog-driving on the Yukon; corr. of French 'marche!' Other words are 'gee,' right; 'haw,' left; 'whoa,' halt. On Mackenzie they use the words 'yeu' and 'chah' for 'right' and 'left').
Gee-Pole (a pole fixed to the front of a runner-sled for the man to hold and guide the sled by).
Parkee (Russian: 'smock with hood').
Bidarka (Russian: 'skin boat').
Skookum (Chinook: 'big and strong').
Klondike (corr. Ai-ya-na: 'thron duick' = 'plenty of fish').
Squaw (Cree: 'esquaw' = 'woman').

COMPARATIVE GLOSSARY OF INDIAN WORDS

ENGLISH	TAKUDH	CREE	CHIPEWYAN
God	Tinjihnūt	Ki jai Manito	
Man	Tinjīh	Ethini	Dinni
Woman	Trenjo	Esquaw	Chekwah
Child	Trinyun	A wahshish	
White man	Ūnjyit		
Boy	Chah	Gūsis	Kwelakwis
Girl	Chū	Tanis	Kwelakwis chekwah
My son	Setinjih	Ne gūsis	Zi azé
My brother	Sondé	Ni stess	Zi raing
My sister	Setchū	Ne miss	
My friend	Sychah	Ni wechi wagan	Zi stau
Big	Chrroh	Mashi kiti	Anshah
Little	Tsùl	Abi sachū	Chautah
Good	Nizi, kwizi	Mithawasin	Lézong
Bad	Nizikkwa, kwizyū		Lézong hūlé (slienė)
Black	Rui	Kaskūtch	Del zin
White	Sson	Wabiska	Yath
Moose	Tinjuik	Mūswa	Dinyai
Caribou	Vŭtsai	Attikk	Edthūn
Wolf	Zzokh	Mayegan	Yess
Sheep	Tivi		
Black bear	Ssokh	Maskwa	Zass
Grizzly bear	Ssikh		
Marten	Buili	Wapistan	Thah
Wolverine	Builichrroh	Kikwa katch	Naguiyai
Lynx	Ninchih	Pichū	

English	Takudh	Cree	Chipewyan
Rabbit	Khakh	Wapūs	Kah
Dog	Thluinh	Atim	Sliengh
Horse	Thluinhchrroh		
Fish	Thlūg	Kenongé	Slué
Boat	Troukih	Chiman	Shaluzi
Wood	Troh	Mistik	Dethkin
Moccasin	Coti	Maskissin	Kinchi
Sugar	Sson kai (sweet white)		
Coffee	Cafi		
Come here!	Anai!	Astamoté!	Yū dessé!
Go away!	Chrrun!	Catan!	
Shut up!	Tathanio!		
Stop doing that!	Achrojinio!		
Yes	Aha	Ugh	Uhuh
No	Kkwa	Nima	Qua
Hurry up!	Chrunchi!	Kwéthepé	
It hurts!	Avah!		Est chūnest hiné
What is it?	Chiti?		Etlah hulia?
I know!	Kasundai!	Akwahūn	
Presently	Kwatlichyih	Pishiskwa	Carahulé
To cry	Vetrui	Mantau	
More	Chhun	Mina	

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